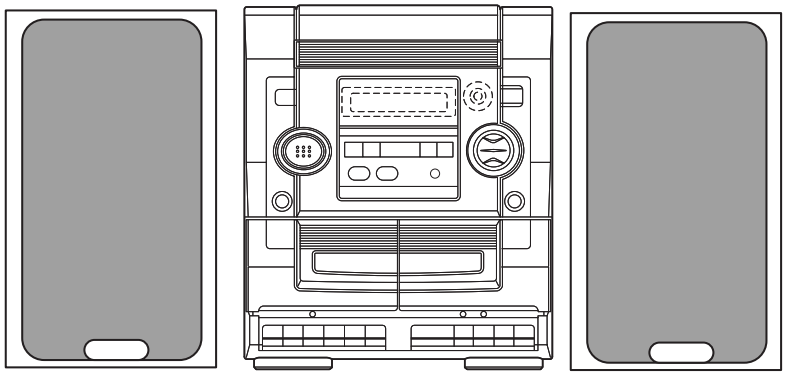
aiwa SERVICE

NSX-VC8 HR



SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC TAPE MECHANISM : ZZM-2 PR1NM
BASIC CD MECHANISM : 3ZG-3 E8NM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-VC8	CX–NVC8	SX-NVC8	RC–AAS09

• This Service Manual is the "Revision Publishing" and replaces "Simple Manual" NSX-VC8 (HR), (S/M Code No. 09-009-437-8T1).

aiwa

S/M Code No. 09-00A-437-8R1

REVISION DATA

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<AM tuner section>

Tuning range	531 kHz to 1602 kHz (9kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated: 16 W + 16 W (6 ohms, T.H.D. 1 %, 1 kHz) Reference: 20 W + 20W (6 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.1 % (10 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 600 mV MIC: 1 mV (10 kohms)
Outputs	SPEAKERS: 6 ohms or more PHONES: 32 ohms or more VIDEO OUT: 1 Vp-p (75 ohms)

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 8000 Hz
Recording system	AC bias
Heads	Deck 1: recording/playback x 1, erase x 1 Deck 2: playback x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
Video signal	NTSC / PAL color format (selectable)
VIdeo data	MPEG 1
Audio data	MPEG 1, Layer 2

<Speaker system SX–NVC8>

Speaker system	1 way, bass reflex
Speaker units	Full range: 100 mm cone
Impedance	6 ohms
Dimensions (W x H x D)	196 x 301 x 198 mm
Weight	1.8 kg

<General>

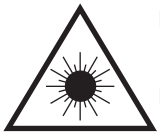
Power requirements	120 V / 220 - 230 V/ 240 V AC (switchable), 50 Hz / 60 Hz
Power consumption	80 W
Dimensions (W x H x D)	260 x 302.5 x 266 mm
Weight	4.2 kg

• Specifications and external appearance are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION
L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL
Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

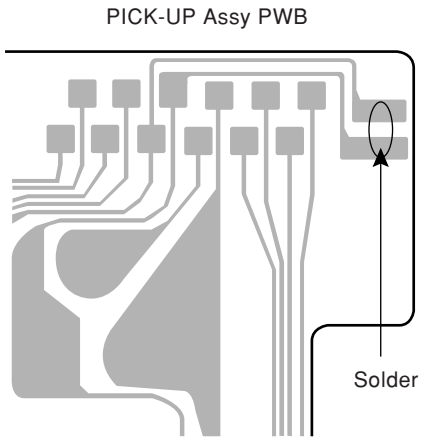
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

(KSS-213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in right figure.



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

① Remove the AC power cord.
② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

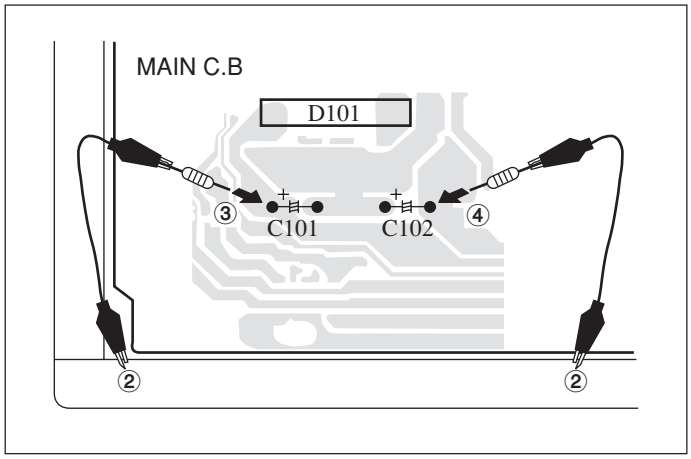


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

① Turn on the AC main power.
② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

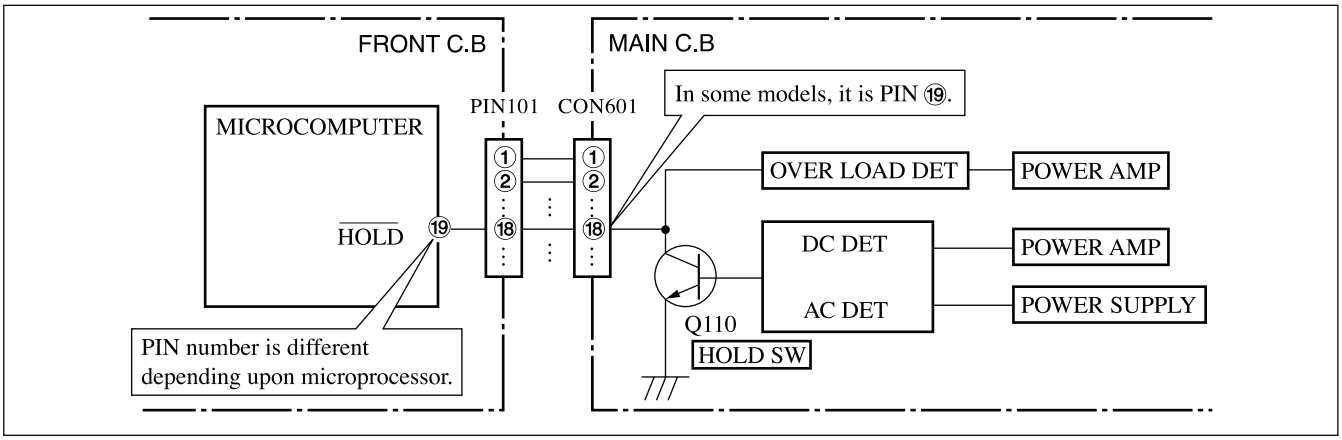


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

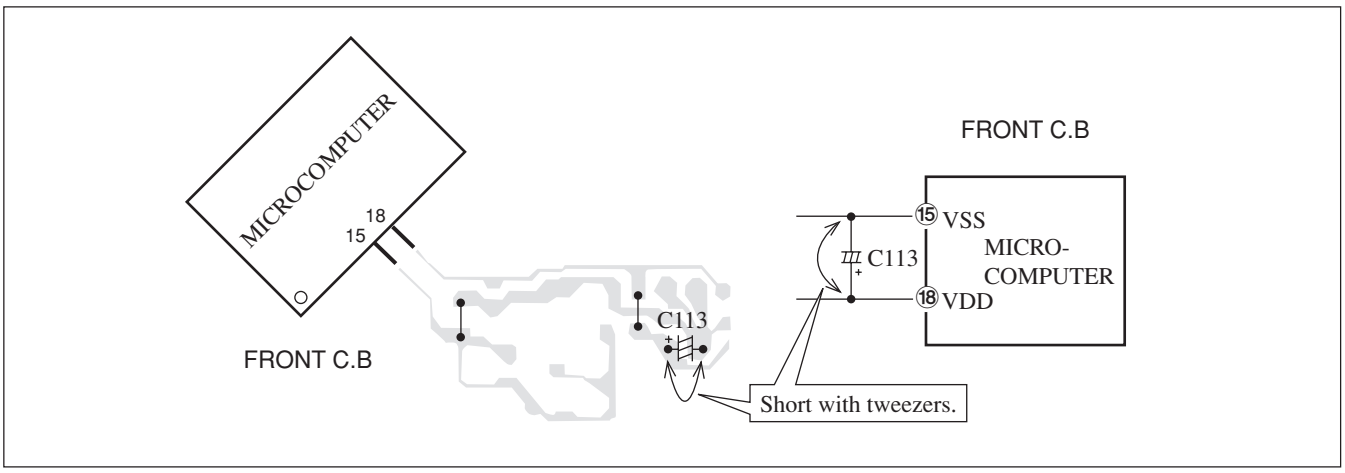


Fig-2-2

② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A21-381-040		C-IC,LA9235M
	87-A21-557-010		C-IC,LC78635E
	8Z-ZJP-602-010		C-IC,UPD78016FGC-574-AB8
	87-017-760-080		IC,M51943BML
	87-A20-925-040		C-IC,BA05FP
	87-A20-905-040		C-IC,BA033FP
	87-A21-513-040		C-IC,BA6998FP
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-A20-920-010		C-IC,CL680-D1
	8A-NHC-602-010		C-IC,M38B57MCH-E260FP
	87-070-083-010		IC,GP1U281X
	87-A20-921-040		C-IC,SN74LVU04APW
	87-A20-962-040		C-IC,MSM54V16258B/BSL
	84-ZG1-695-040		C-IC,LH5V2RN1
	87-A20-975-040		C-IC,SN74LV74APW
	87-A21-443-040		C-IC,M62495AFP
	87-A20-918-040		C-IC,SM5878AM
	87-A20-974-040		C-IC,LC74781M-9017
	87-A21-560-010		IC,LA1844L-A
	87-070-127-110		IC,LC72131 D
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	87-A30-076-080		C-TR,2SC3052F
	89-213-702-010		TR,2SB1370 (1.8W)
	87-026-610-080		TR,KTC3198GR
	87-A30-074-080		C-TR,RT1P 141C
	87-A30-075-080		C-TR,2SA1235F
	87-A30-190-080		TR,CC5551
	87-A30-256-010		TR,2SD1933
	87-A30-255-010		TR,2SB1342
	87-A30-107-070		C-TR,CMBT5401
	87-A30-106-040		C-TR,CMBT5551
	87-026-231-080		CHIP-TRANSISTER,DTA124XK
	87-026-237-080		CHIP-TR,DTC124XK
	87-A30-104-080		C-TR,RT1N 441C
	87-A30-520-080		TR,2SC5342Y
	87-A30-090-080		FET,2SK2541
	87-A30-091-080		FET,2SJ460
	87-A30-062-080		C-TR,KRC104S
	87-A30-318-080		TR,CSA952K
	87-A30-492-080		TR,2SC5343G
	87-A30-234-080		TR,CSC4115BC
	89-327-125-080		CHIP TR,2SC2712GR
	87-026-580-080		C-TR,DTA123JK
	87-026-470-080		C-TR,HN1C03F (0.3W)
	89-111-625-080		C-TR,2SA1162GR (0.15W)
	87-A30-521-080		C-TR,2SC5345S(O)
	87-A30-489-080		C-TR,KRA107S
	89-503-602-080		C-FET,2SK360E
	89-327-143-080		TR,2SC2714O (0.1W)
DIODE			
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-777-080		ZENER,UZ30BSB
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-269-080		C-DIODE,MC2836
	87-A40-270-080		C-DIODE,MC2838
	87-017-024-040		C-DIODE,DA204K
	87-A40-749-080		ZENER,UZ5.6BSB
	87-020-027-080		CHIP-DIODE 1SS184
	87-A40-739-080		ZENER,UZ2.7BSA
	87-A40-751-080		ZENER,UZ6.2BSB
	87-A40-748-080		ZENER,UZ5.6BSA
	87-A40-760-080		ZENER,UZ9.1BSA

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
MAIN C.B			
C9	87-010-759-080		C-CAP,U, 0.1-25F
C10	87-010-759-080		C-CAP,U, 0.1-25F
C11	87-010-759-080		C-CAP,U, 0.1-25F
C12	87-010-759-080		C-CAP,U, 0.1-25F
C21	87-A10-520-000		CAP,E 3300-35 M SMG
C22	87-016-051-000		CAP,E 2200-35 M SMG
C25	87-010-406-080		CAP, ELECT 22-50
C26	87-010-406-080		CAP, ELECT 22-50
C31	87-010-759-080		C-CAP,U, 0.1-25F
C32	87-012-286-080		CAP, U 0.01-25
C34	87-010-247-080		CAP, ELECT 100-50V
C35	87-010-406-080		CAP, ELECT 22-50
C36	87-010-112-080		CAP, ELECT 100-16V
C50	87-010-247-080		CAP, ELECT 100-50V
C51	87-010-247-080		CAP, ELECT 100-50V
C60	87-010-403-080		CAP, ELECT 3.3-50V
C61	87-010-260-080		CAP, ELECT 47-25V
C81	87-010-401-080		CAP, ELECT 1-50V
C82	87-010-407-080		CAP, ELECT 33-50V
C83	87-010-260-080		CAP, ELECT 47-25V
C101	87-012-282-080		CAP, U 4700P-50
C102	87-012-282-080		CAP, U 4700P-50
C103	87-010-544-080		CAP, ELECT 0.1-50V
C104	87-010-544-080		CAP, ELECT 0.1-50V
C105	87-012-282-080		CAP, U 4700P-50
C106	87-012-282-080		CAP, U 4700P-50
C107	87-010-403-080		CAP, ELECT 3.3-50V
C108	87-010-403-080		CAP, ELECT 3.3-50V
C111	87-010-406-080		CAP, ELECT 22-50
C112	87-010-406-080		CAP, ELECT 22-50
C113	87-A10-946-080		C-CAP,S 220P-100 J CH
C114	87-A10-946-080		C-CAP,S 220P-100 J CH
C117	87-012-286-080		CAP, U 0.01-25
C118	87-012-286-080		CAP, U 0.01-25
C119	87-012-286-080		CAP, U 0.01-25
C120	87-012-286-080		CAP, U 0.01-25
C125	87-010-759-080		C-CAP,U, 0.1-25F
C126	87-010-759-080		C-CAP,U, 0.1-25F
C127	87-010-759-080		C-CAP,U, 0.1-25F
C128	87-010-759-080		C-CAP,U, 0.1-25F
C140	87-010-190-080		S CHIP F 0.01
C401	87-010-759-080		C-CAP,U, 0.1-25F
C402	87-010-759-080		C-CAP,U, 0.1-25F
C403	87-012-193-080		C-CAP,U 82P-50 CH
C404	87-012-193-080		C-CAP,U 82P-50 CH
C405	87-012-286-080		CAP, U 0.01-25
C406	87-012-286-080		CAP, U 0.01-25
C407	87-012-286-080		CAP, U 0.01-25
C408	87-012-286-080		CAP, U 0.01-25
C409	87-012-278-080		C-CAP,U 2200P-50 B
C410	87-012-278-080		C-CAP,U 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V
C412	87-010-405-080		CAP, ELECT 10-50V
C413	87-012-286-080		CAP, U 0.01-25
C421	87-012-275-080		C-CAP,U 1200P-50 B
C422	87-012-275-080		C-CAP,U 1200P-50 B
C423	87-012-274-080		CHIP CAP,U 1000P-50B
C424	87-012-274-080		CHIP CAP,U 1000P-50B
C425	87-010-263-080		CAP, ELECT 100-10V
C426	87-010-263-080		CAP, ELECT 100-10V
C427	87-012-188-080		C-CAP,U 47P-50 CH
C428	87-012-188-080		C-CAP,U 47P-50 CH
C429	87-010-598-080		C-CAP,S 0.068-16VRK
C430	87-010-598-080		C-CAP,S 0.068-16VRK
C431	87-012-284-080		CAP, U 6800P-50
C432	87-012-284-080		CAP, U 6800P-50
C433	87-010-546-080		CAP, ELECT 0.33-50V
C434	87-010-546-080		CAP, ELECT 0.33-50V
C435	87-010-263-080		CAP, ELECT 100-10V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C441	87-010-759-080		C-CAP,U, 0.1-25F
C442	87-010-759-080		C-CAP,U, 0.1-25F
C443	87-010-759-080		C-CAP,U, 0.1-25F
C445	87-A10-039-080		C-CAP,U 470P-50 J CH
C452	87-010-382-080		CAP, ELECT 22-25V
C453	87-012-279-080		C-CAP,U 2700P-50 B
C454	87-012-279-080		C-CAP,U 2700P-50 B
C455	87-012-279-080		C-CAP,U 2700P-50 B
C456	87-012-286-080		CAP, U 0.01-25
C460	87-010-759-080		C-CAP,U, 0.1-25F
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C470	87-A10-039-080		C-CAP,U 470P-50 J CH
C605	87-012-275-080		C-CAP,U 1200P-50 B
C606	87-012-275-080		C-CAP,U 1200P-50 B
C609	87-010-785-080		C-CAP,U0.015-25BK
C610	87-010-785-080		C-CAP,U0.015-25BK
C611	87-010-545-080		CAP, ELECT 0.22-50V
C612	87-010-545-080		CAP, ELECT 0.22-50V
C613	87-010-545-080		CAP, ELECT 0.22-50V
C614	87-010-545-080		CAP, ELECT 0.22-50V
C615	87-012-172-080		CAPACITOR CHIP U 10P CH
C616	87-010-248-080		CAP, ELECT 220-10V
C617	87-016-459-080		CAP,E 470-10 SMG
C618	87-010-405-080		CAP, ELECT 10-50V
C630	87-A10-248-080		C-CAP,U0.1-16KBR
C669	87-012-195-080		C-CAP,U 100P-50CH
C670	87-012-195-080		C-CAP,U 100P-50CH
C671	87-010-831-080		C-CAP,U,0.1-16F
C672	87-010-831-080		C-CAP,U,0.1-16F
C673	87-012-278-080		C-CAP,U 2200P-50 B
C677	87-012-286-080		CAP, U 0.01-25
C679	87-A11-112-080		CAP,TC U 1000P-50 J CH
C681	87-010-401-080		CAP, ELECT 1-50V
C682	87-010-759-080		C-CAP,U, 0.1-25F
C683	87-010-260-080		CAP, ELECT 47-25V
C771	87-010-263-080		CAP, ELECT 100-10V
C772	87-012-286-080		CAP, U 0.01-25
C782	87-012-286-080		CAP, U 0.01-25
C783	87-012-286-080		CAP, U 0.01-25
C784	87-012-286-080		CAP, U 0.01-25
C785	87-012-286-080		CAP, U 0.01-25
C786	87-012-286-080		CAP, U 0.01-25
C788	87-012-167-080		C-CAP,U 5P-50 CH
C789	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C790	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C791	87-010-759-080		C-CAP,U, 0.1-25F
C792	87-012-286-080		CAP, U 0.01-25
C793	87-010-404-080		CAP, ELECT 4.7-50V
C795	87-012-286-080		CAP, U 0.01-25
C796	87-012-286-080		CAP, U 0.01-25
C797	87-010-405-080		CAP, ELECT 10-50V
C798	87-012-286-080		CAP, U 0.01-25
C799	87-010-407-080		CAP, ELECT 33-50V
C800	87-010-829-080		CAP, U 0.047-16
C801	87-010-403-080		CAP, ELECT 3.3-50V
C802	87-010-829-080		CAP, U 0.047-16
C803	87-010-787-080		CAP, U 0.022-25
C804	87-010-263-080		CAP, ELECT 100-10V
C807	87-010-400-080		CAP, ELECT 0.47-50V
C808	87-010-401-080		CAP, ELECT 1-50V
C809	87-010-401-080		CAP, ELECT 1-50V
C810	87-010-759-080		C-CAP,U, 0.1-25F
C814	87-012-286-080		CAP, U 0.01-25
C815	87-010-400-080		CAP, ELECT 0.47-50V
C816	87-010-400-080		CAP, ELECT 0.47-50V
C821	87-010-405-080		CAP, ELECT 10-50V
C823	87-010-177-080		C-CAP,S 820P-50 SL
C824	87-010-404-080		CAP, ELECT 4.7-50V
C825	87-010-596-080		CAP, S 0.047-16

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C836	87-012-286-080		CAP, U 0.01-25
C837	87-012-286-080		CAP, U 0.01-25
C842	87-012-286-080		CAP, U 0.01-25
C844	87-012-286-080		CAP, U 0.01-25
C850	87-010-260-080		CAP, ELECT 47-25V
C851	87-012-286-080		CAP, U 0.01-25
C852	87-012-286-080		CAP, U 0.01-25
C853	87-012-286-080		CAP, U 0.01-25
C858	87-010-759-080		C-CAP,U, 0.1-25F
C859	87-010-759-080		C-CAP,U, 0.1-25F
C860	87-012-286-080		CAP, U 0.01-25
C902	87-018-145-080		CAP,TC-U 6.8P-50 CH
C908	87-012-174-080		CAP CHIP CERA SS 12P CHJ
C909	87-012-349-080		C-CAP,S 1000P-50 CH
C911	87-012-170-080		C-CAP,U 8P-50 CH
C912	87-012-195-080		C-CAP,U 100P-50CH
C913	87-012-286-080		CAP, U 0.01-25
C914	87-012-286-080		CAP, U 0.01-25
C915	87-012-286-080		CAP, U 0.01-25
C918	87-012-165-080		CAP 3P
C920	87-012-180-080		C-CAP,U 22P-50 CH
C921	87-012-186-080		C-CAP,U 39P-50 CH
C922	87-012-174-080		CAP CHIP CERA SS 12P CHJ
C923	87-A10-039-080		C-CAP,U 470P-50 J CH
C924	87-012-174-080		CAP CHIP CERA SS 12P CHJ
C927	87-012-195-080		C-CAP,U 100P-50CH
C961	87-012-170-080		C-CAP,U 8P-50 CH
C962	87-010-401-080		CAP, ELECT 1-50V
C971	87-010-381-080		CAP, ELECT 330-16V
C972	87-010-404-080		CAP, ELECT 4.7-50V
C973	87-012-286-080		CAP, U 0.01-25
C974	87-012-286-080		CAP, U 0.01-25
C979	87-012-195-080		C-CAP,U 100P-50CH
C981	87-010-260-080		CAP, ELECT 47-25V
C982	87-010-759-080		C-CAP,U, 0.1-25F
C983	87-012-286-080		CAP, U 0.01-25
C984	87-012-286-080		CAP, U 0.01-25
C987	87-012-286-080		CAP, U 0.01-25
C990	87-012-195-080		C-CAP,U 100P-50CH
C991	87-012-176-080		CAP 15P
C992	87-012-176-080		CAP 15P
C993	87-012-274-080		CHIP CAP,U 1000P-50B
C994	87-012-195-080		C-CAP,U 100P-50CH
C995	87-012-274-080		CHIP CAP,U 1000P-50B
C996	87-012-195-080		C-CAP,U 100P-50CH
C997	87-010-759-080		C-CAP,U, 0.1-25F
C998	87-010-260-080		CAP, ELECT 47-25V
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
CF831	87-008-261-010		FILTER, SFE10.7MA5-A
CF832	87-008-261-010		FILTER, SFE10.7MA5-A
CN81	87-009-030-010		CONNECTOR 2P PH M
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN401	87-A60-620-010		CONN,3P V 2MM JMT
CN601	87-099-194-010		CONN,6P 6216V
CNA351	8A-NEC-634-010		CONN ASSY,8P RPB
CNA401	8A-NEC-633-010		CONN ASSY,3P (PH)
D902	87-A40-916-040		C-VARI-CAP,HVC202A
D903	87-A40-916-040		C-VARI-CAP,HVC202A
⚠ F101	87-035-223-010		FUSE, 1.25AT
⚠ FC101	87-033-213-080		CLAMP, FUSE
⚠ FC102	87-033-213-080		CLAMP, FUSE
FC601	88-906-201-110		FF-CABLE,6P 1.25
J101	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
J103	87-A61-452-010		TERMINAL,SP 4P(MSC)
J271	87-A61-243-010		JACK,6.3 BLK MONO W/SW V MSC
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J831	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
L101	87-A50-610-010		COIL,1UH K(MDEC)
L102	87-A50-610-010		COIL,1UH K(MDEC)
L451	87-007-342-010		COIL,OSC 85K BIAS

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L801	87-A50-608-010		COIL,FM DET-N(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UH(CECS)
L832	87-005-847-080		COIL,2.2UH(CECS)
L903	88-ZA1-602-110		COIL,FM-RF-U2 2G
L904	88-ZA1-601-010		COIL,FM-RF-U1 2G
L906	87-005-847-080		COIL,2.2UH(CECS)
L907	8A-NEC-611-010		COIL,FM OSC U 2G
L908	88-ZA1-624-010		COIL,FM IFT 7-6.2 (COILS)
L951	8A-NF8-667-010		COIL,AM PACK 4(TOK)
⚠ PT101	8A-NHC-605-010		PT,ANH-C HR
R129	87-A00-258-080		RES,M/F 0.22-1W J
R130	87-A00-258-080		RES,M/F 0.22-1W J
R790	87-012-286-080		CAP, U 0.01-25
RY101	87-045-389-010		RELAY,OSA-SS-212DM5
⚠ S1	87-A90-165-010		SW,SL 1-2-3 SWS2301
⚠ T101	87-A60-317-010		TERMINAL, 1P MSC
⚠ T102	87-A60-317-010		TERMINAL, 1P MSC
TH101	87-A91-042-080		C-THMS,100K 55001
TH102	87-A91-042-080		C-THMS,100K 55001
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

C201	87-010-401-040		CAP,E 1-50 SME
C202	87-010-759-080		C-CAP,U, 0.1-25F
C203	87-010-260-040		CAP,E 47-25 SME
C204	87-016-251-040		CAP,E 220-16 SMG
C271	87-012-282-080		CAP, U 4700P-50
C272	87-010-112-040		CAP,E 100-16
C273	87-010-545-040		CAP,E 0.22-50 SME
C274	87-012-195-080		C-CAP,U 100P-50CH
C275	87-010-545-040		CAP,E 0.22-50 SME
C276	87-A10-248-080		C-CAP,U0.1-16KBR
C277	87-010-405-040		CAP,E 10-50
C278	87-012-195-080		C-CAP,U 100P-50CH
C279	87-010-405-040		CAP,E 10-50
C280	87-010-759-080		C-CAP,U, 0.1-25F
C281	87-010-177-080		C-CAP,S 820P-50 SL
C282	87-010-177-080		C-CAP,S 820P-50 SL
C500	87-010-759-080		C-CAP,U, 0.1-25F
C505	87-010-829-080		CAP, U 0.047-16
C506	87-010-263-040		CAP,E 100-10
C507	87-010-246-040		CAP,E 47-35 SME
C508	87-010-192-080		C-CAP,S 0.022-50 F
C509	87-010-404-040		CAP,E 4.7-50 SME
C510	87-010-404-040		CAP,E 4.7-50 SME
C511	87-010-759-080		C-CAP,U, 0.1-25F
C512	87-010-263-040		CAP,E 100-10
C514	87-012-274-080		CHIP CAP,U 1000P-50B
C515	87-012-274-080		CHIP CAP,U 1000P-50B
C517	87-010-759-080		C-CAP,U, 0.1-25F
C518	87-012-268-080		C-CAP,U 330P-50 B
C523	87-010-248-040		CAP,E 220-10 SME
C524	87-010-192-080		C-CAP,S 0.022-50 F
C525	87-010-401-040		CAP,E 1-50 SME
C526	87-012-172-080		CAPACITOR CHIP U 10P CH
C527	87-012-274-080		CHIP CAP,U 1000P-50B
C528	87-010-175-080		CAP 560P
C530	87-012-195-080		C-CAP,U 100P-50CH
C531	87-012-195-080		C-CAP,U 100P-50CH
C532	87-012-195-080		C-CAP,U 100P-50CH
C533	87-012-195-080		C-CAP,U 100P-50CH
C534	87-012-195-080		C-CAP,U 100P-50CH
C535	87-012-195-080		C-CAP,U 100P-50CH
C536	87-012-195-080		C-CAP,U 100P-50CH
C537	87-012-195-080		C-CAP,U 100P-50CH
C538	87-012-195-080		C-CAP,U 100P-50CH
C539	87-012-199-080		CAP 220P
C540	87-010-759-080		C-CAP,U, 0.1-25F
C541	87-016-459-040		CAP,E 470-10 SMG
C543	87-010-405-040		CAP,E 10-50
C590	87-010-384-040		CAP,E 100-25 SME
CN201	87-A60-058-010		CONN,10P V 9604S-10C
CN501	87-A60-673-010		CONN,9P H 2MM JMT
EMI271	87-008-372-080		FILTER, EMI BL OIRNI
FC201	88-910-231-110		FF-CABLE,10P 1.25 230MM
FL501	8A-NEC-601-010		FL,HNA-10SS15T
L501	87-A50-655-010		COIL,CLK 4.19MHZ (TOKO)7KLY
S201	87-A90-095-080		SW,TACT EVQ11G04M
S202	87-A90-095-080		SW,TACT EVQ11G04M
S203	87-A90-095-080		SW,TACT EVQ11G04M
S204	87-A90-095-080		SW,TACT EVQ11G04M
S205	87-A90-095-080		SW,TACT EVQ11G04M
S206	87-A90-095-080		SW,TACT EVQ11G04M
S208	87-A90-095-080		SW,TACT EVQ11G04M
S209	87-A90-095-080		SW,TACT EVQ11G04M
S210	87-A90-095-080		SW,TACT EVQ11G04M
S211	87-A90-095-080		SW,TACT EVQ11G04M
S212	87-A90-095-080		SW,TACT EVQ11G04M
S213	87-A90-095-080		SW,TACT EVQ11G04M
SFR501	87-024-431-080		SFR,3.3K RH063EC
VR271	87-NB7-602-010		VR,RTRY 10KAX1 1 V

CD C.B

C1	87-A10-222-040		CAP,AS 22-10 OS
C2	87-010-759-080		C-CAP,U, 0.1-25F
C3	87-010-260-080		CAP, ELECT 47-25V
C4	87-A10-222-040		CAP,AS 22-10 OS
C5	87-012-286-080		CAP, U 0.01-25
C6	87-010-405-080		CAP, ELECT 10-50V
C7	87-010-263-080		CAP, ELECT 100-10V
C8	87-012-274-080		CHIP CAP,U 1000P-50B
C10	87-010-546-080		CAP, ELECT 0.33-50V
C11	87-010-401-080		CAP, ELECT 1-50V
C13	87-012-193-080		C-CAP,U 82P-50 CH
C15	87-012-286-080		CAP, U 0.01-25
C16	87-010-260-080		CAP, ELECT 47-25V
C101	87-A10-504-080		C-CAP,U 0.047-16 K B
C102	87-010-401-080		CAP, ELECT 1-50V
C103	87-010-759-080		C-CAP,U, 0.1-25F
C104	87-010-759-080		C-CAP,U, 0.1-25F
C105	87-010-260-080		CAP, ELECT 47-25V
C106	87-012-195-080		C-CAP,U 100P-50CH
C107	87-010-759-080		C-CAP,U, 0.1-25F
C108	87-012-282-080		CAP, U 4700P-50
C109	87-A10-504-080		C-CAP,U 0.047-16 K B
C110	87-012-195-080		C-CAP,U 100P-50CH
C111	87-010-260-080		CAP, ELECT 47-25V
C112	87-012-286-080		CAP, U 0.01-25
C114	87-010-260-080		CAP, ELECT 47-25V
C115	87-012-286-080		CAP, U 0.01-25
C118	87-010-263-080		CAP, ELECT 100-10V
C119	87-012-286-080		CAP, U 0.01-25
C120	87-012-286-080		CAP, U 0.01-25
C123	87-A10-504-080		C-CAP,U 0.047-16 K B
C124	87-010-403-080		CAP, ELECT 3.3-50V
C125	87-010-759-080		C-CAP,U, 0.1-25F
C135	87-012-195-080		C-CAP,U 100P-50CH
C201	87-A10-248-080		C-CAP,U0.1-16KBR
C206	87-012-195-080		C-CAP,U 100P-50CH
C207	87-012-195-080		C-CAP,U 100P-50CH
C208	87-012-195-080		C-CAP,U 100P-50CH
C209	87-012-195-080		C-CAP,U 100P-50CH
C210	87-A10-248-080		C-CAP,U0.1-16KBR
C211	87-010-263-080		CAP, ELECT 100-10V
C213	87-010-190-080		S CHIP F 0.01
C214	87-010-759-080		C-CAP,U, 0.1-25F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C306	87-010-112-080		CAP, ELECT 100-16V
C307	87-010-759-080		C-CAP,U, 0.1-25F
C308	87-010-263-080		CAP, ELECT 100-10V
C309	87-010-759-080		C-CAP,U, 0.1-25F
C310	87-010-263-080		CAP, ELECT 100-10V
C311	87-010-759-080		C-CAP,U, 0.1-25F
C401	87-010-101-080		CAP, ELECT 220-16
C402	87-010-759-080		C-CAP,U, 0.1-25F
C403	87-010-759-080		C-CAP,U, 0.1-25F
C404	87-010-759-080		C-CAP,U, 0.1-25F
C405	87-010-759-080		C-CAP,U, 0.1-25F
C406	87-010-759-080		C-CAP,U, 0.1-25F
C501	87-012-286-080		CAP, U 0.01-25
C502	87-012-286-080		CAP, U 0.01-25
C503	87-012-286-080		CAP, U 0.01-25
C504	87-012-172-080		CAPACITOR CHIP U 10P CH
C505	87-012-172-080		CAPACITOR CHIP U 10P CH
C506	87-012-286-080		CAP, U 0.01-25
C508	87-010-263-080		CAP, ELECT 100-10V
C509	87-016-669-080		C-CAP,S 0.1-25 K B
C510	87-010-263-080		CAP, ELECT 100-10V
C511	87-010-759-080		C-CAP,U, 0.1-25F
C512	87-012-286-080		CAP, U 0.01-25
C513	87-012-286-080		CAP, U 0.01-25
C514	87-012-286-080		CAP, U 0.01-25
C518	87-012-195-080		C-CAP,U 100P-50CH
C519	87-012-145-080		CAP, CHIP S 270P CH
C520	87-012-157-080		C-CAP,S 330P-50 CH
C521	87-012-197-080		C-CAP,U 150P-50 CH
C523	87-012-286-080		CAP, U 0.01-25
C524	87-012-286-080		CAP, U 0.01-25
C525	87-012-286-080		CAP, U 0.01-25
C526	87-012-286-080		CAP, U 0.01-25
C527	87-012-286-080		CAP, U 0.01-25
C528	87-012-286-080		CAP, U 0.01-25
C529	87-012-286-080		CAP, U 0.01-25
C530	87-012-286-080		CAP, U 0.01-25
C531	87-012-286-080		CAP, U 0.01-25
C532	87-010-374-040		CAP,E 47-10
C533	87-012-286-080		CAP, U 0.01-25
C534	87-010-263-080		CAP, ELECT 100-10V
C535	87-012-286-080		CAP, U 0.01-25
C536	87-010-078-040		CAP,E 47-6.3 5L
C537	87-010-190-080		S CHIP F 0.01
C538	87-010-759-080		C-CAP,U, 0.1-25F
C539	87-010-759-080		C-CAP,U, 0.1-25F
C540	87-010-078-040		CAP,E 47-6.3 5L
C541	87-012-286-080		CAP, U 0.01-25
C542	87-012-188-080		C-CAP,U 47P-50 CH
C544	87-012-286-080		CAP, U 0.01-25
C546	87-012-286-080		CAP, U 0.01-25
C560	87-010-759-080		C-CAP,U, 0.1-25F
C601	87-012-286-080		CAP, U 0.01-25
C602	87-012-286-080		CAP, U 0.01-25
C603	87-010-112-080		CAP, ELECT 100-16V
C604	87-010-759-080		C-CAP,U, 0.1-25F
C605	87-012-286-080		CAP, U 0.01-25
C606	87-012-286-080		CAP, U 0.01-25
C607	87-012-178-080		C-CAP,U 18P-50 CH
C608	87-012-178-080		C-CAP,U 18P-50 CH
C609	87-012-274-080		CHIP CAP,U 1000P-50B
C610	87-012-274-080		CHIP CAP,U 1000P-50B
C611	87-012-274-080		CHIP CAP,U 1000P-50B
C612	87-012-274-080		CHIP CAP,U 1000P-50B
C613	87-010-403-040		CAP,E 3.3-50 SME
C614	87-010-403-040		CAP,E 3.3-50 SME
C615	87-012-188-080		C-CAP,U 47P-50 CH
C616	87-012-188-080		C-CAP,U 47P-50 CH
C617	87-012-286-080		CAP, U 0.01-25
C618	87-010-112-080		CAP, ELECT 100-16V
C619	87-012-286-080		CAP, U 0.01-25
C701	87-012-196-080		C-CAP,U 120P-50 CH
C702	87-010-494-080		CAP ELECT GAS 1/50
C703	87-012-286-080		CAP, U 0.01-25
C704	87-016-526-080		C-CAP,S 0.47-16 BK
C705	87-010-371-080		CAP, ELECT 470-6.3V
C706	87-010-759-080		C-CAP,U, 0.1-25F
C707	87-012-286-080		CAP, U 0.01-25
C708	87-A11-167-080		C-CAP,S 27P-50 F CH
C709	87-A11-167-080		C-CAP,S 27P-50 F CH
CN1	87-A60-424-010		CONN,16P V TOC-B
CN301	87-099-199-010		CONN,6P 6216 H
CN401	87-099-199-010		CONN,6P 6216 H
CN403	87-A60-077-010		CONN,10P H 9604S-10F
CN404	87-A60-082-010		CONN,05P H 9604S-05F
FB501	87-008-372-080		FILTER, EMI BL OIRNI
FC1	8A-NHC-603-010		FF-CABLE,16P -1.0
FC401	88-906-121-110		FF-CABLE,6P
FC404	88-905-201-110		FF-CABLE, 5P 1.25
J701	87-009-502-010		JACK,PIN 1P Y EARTH
JR302	87-005-778-080		C-COIL,10UK NLC25
L502	87-005-204-080		COIL,47UH
L503	87-005-189-080		COIL 2.7UH
L504	87-005-187-080		COIL,1.8UH
L505	87-005-204-080		COIL,47UH
L506	87-005-204-080		COIL,47UH
L507	87-005-204-080		COIL,47UH
L508	87-005-196-080		COIL,10UH
L701	87-005-817-080		C-COIL, 33UH J FLC32
R507	87-A00-408-080		C-RES,S 2K-1/10W D
R536	87-012-286-080		CAP, U 0.01-25
S201	87-A90-162-010		SW,SL 1-1-3 SSSU
X201	87-A70-124-080		VIB,CER 8.0MHZ
X501	87-A70-125-080		VIB,XTAL 27MHZ 50PPM
X601	87-030-270-080		VIB,XTAL 16.9344MHZ

CD LOAD C.B

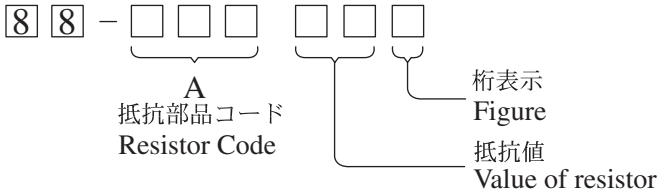
CON6	87-099-210-010		CONN,5P 6216H
M1	87-045-305-010		MOTOR,RF-500TB DC-5V(2MA)
SW1	87-036-110-010		PUSH SWITCH
SW2	87-036-110-010		PUSH SWITCH

CD DRIVE C.B

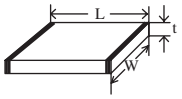
CON3	87-A60-086-010		CONN,6P H 6216
M20	87-045-358-010		MOT,RF-310TA 43
M21	87-045-356-010		MOT,RF-310TA 30
SW1	87-A90-042-010		SW,LEAF MSW-17310MVPO

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

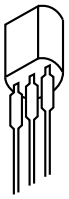
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

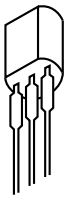


E C B

CC5551
CSA952K
KTA1266GR
KTC3198GR

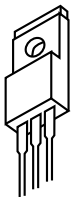
E C B

2SC5342Y
2SC5343G



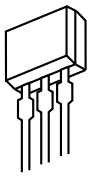
E C B

CSC4115BC



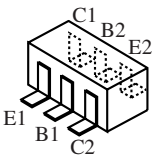
B C E

2SB1342
2SB1370
2SD1933

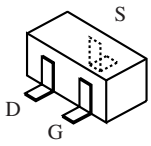


S D G

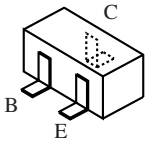
2SJ460
2SK2541



HN1C03F



2SK360E



2SA1162GR
2SA1235F
2SC2712GR
2SC2714O
2SC3052F
2SC5345S(0)
CMBT5401
CMBT5551
DTA123JK
DTA124XK
DTC124XK
KRA107S
KRC104S
RT1N441C
RT1P141C

B FRONT C.B

FL501 DISPLAY

S208 ■CLEAR/ RETURN

S205 II SET

S203 T-BASS

S209 FUNCTION

S201 POWER⏻ STANDBY/ON

IC502 REMOTE SENSOR

S213 ▲OPEN/CLOSE

S206 ∧ VOLUME UP

S210 ◀◀/◀◀ DOWN /PREVIOUS

S211 ▶▶/▶▶UP/ NEXT TUNING

S212 V VOLUME DOWN

S202 GEQ

S204 ▶PRESET/SELECT

J271 MIC

VR271 MIC MIXING

TO TAPE MECHANISM ZZM-2 PRINM (CNA501)

TO TAPE MECHANISM ZZM-2 PRINM (CNA351)

TO TAPE MECHANISM ZZM-2 PRINM (CNA401)

(FC201) TO CD C.B CN405

J101 PHONES

J831 ANTENNA

AM LOOP

TFM 75Ω

VIDEO/AUX R L

TO FAN

SPEAKERS SPEAKERS IMP: 6 Ω

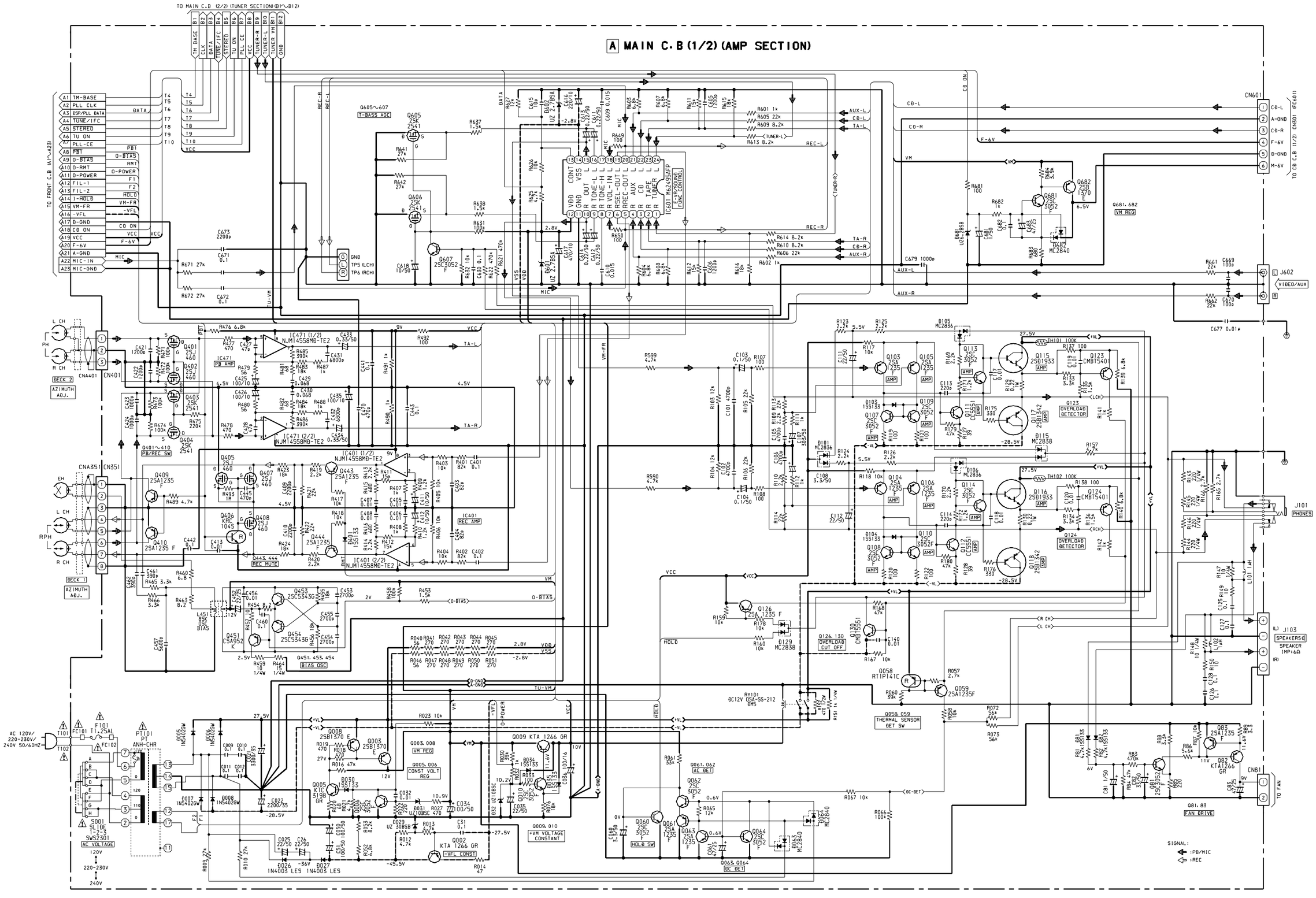
(FC601) TO CD C.B CN301

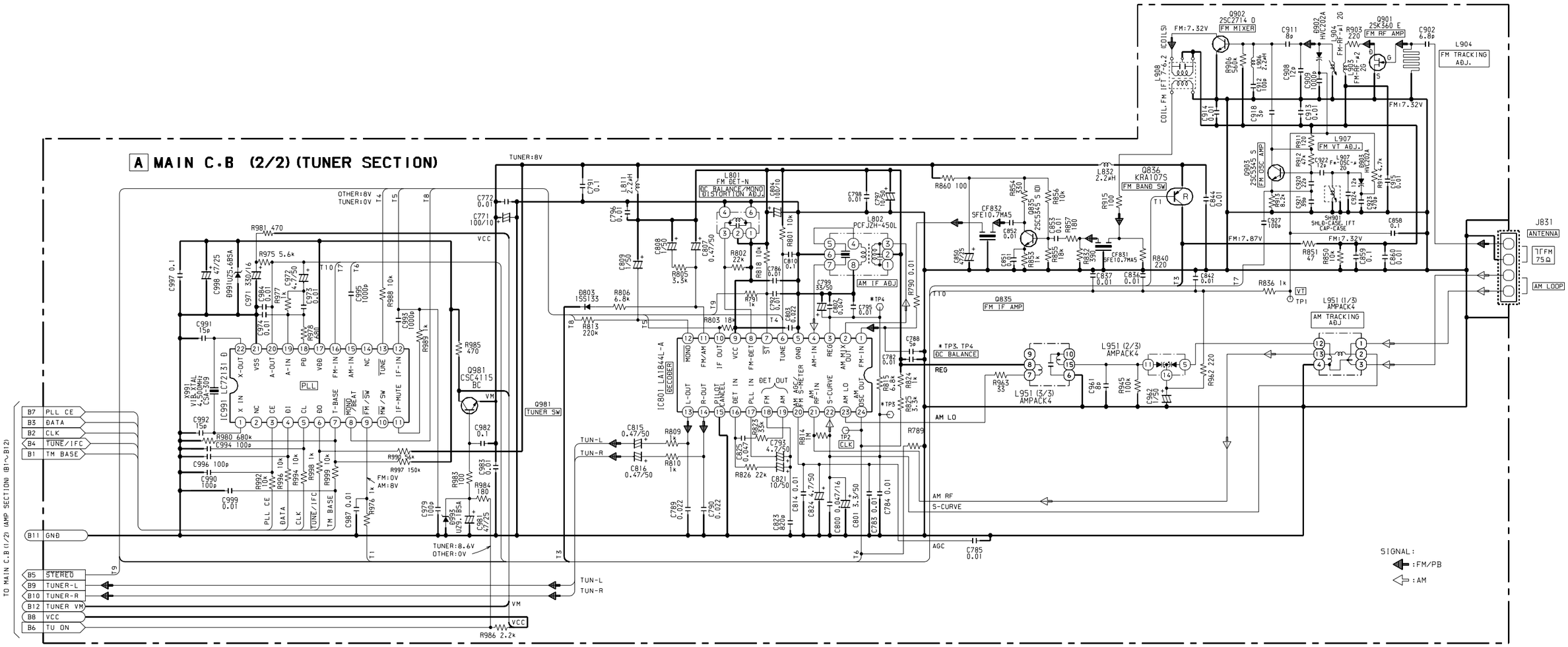
S001 AC VOLTAGE 120V◀▶220-230V◀▶240V

BLU BRN AC120V/ 220-230V/ 240V 50/60HZ

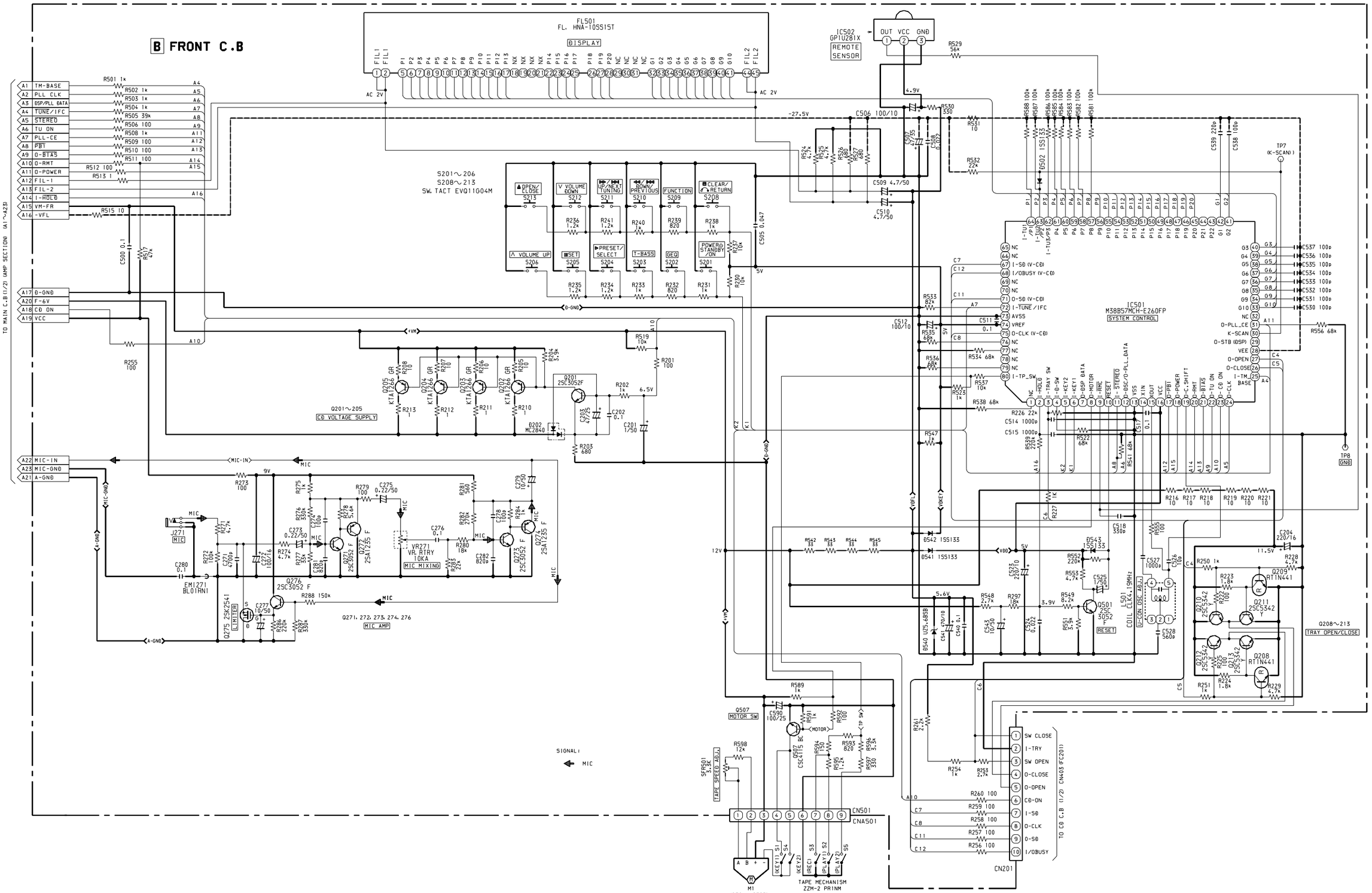
A MAIN C.B

SCHEMATIC DIAGRAM – 1 (MAIN 1 / 2 : AMP SECTION)

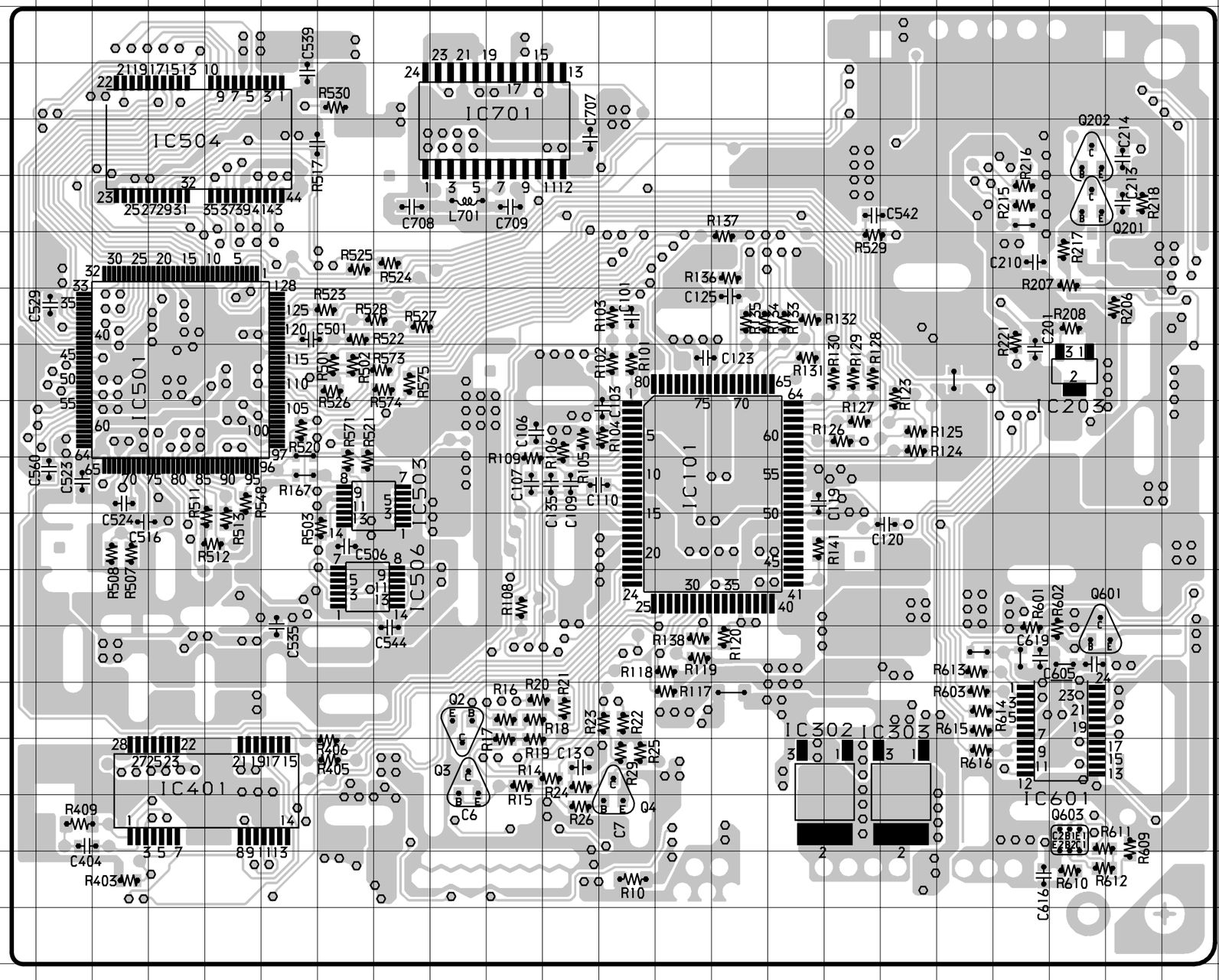


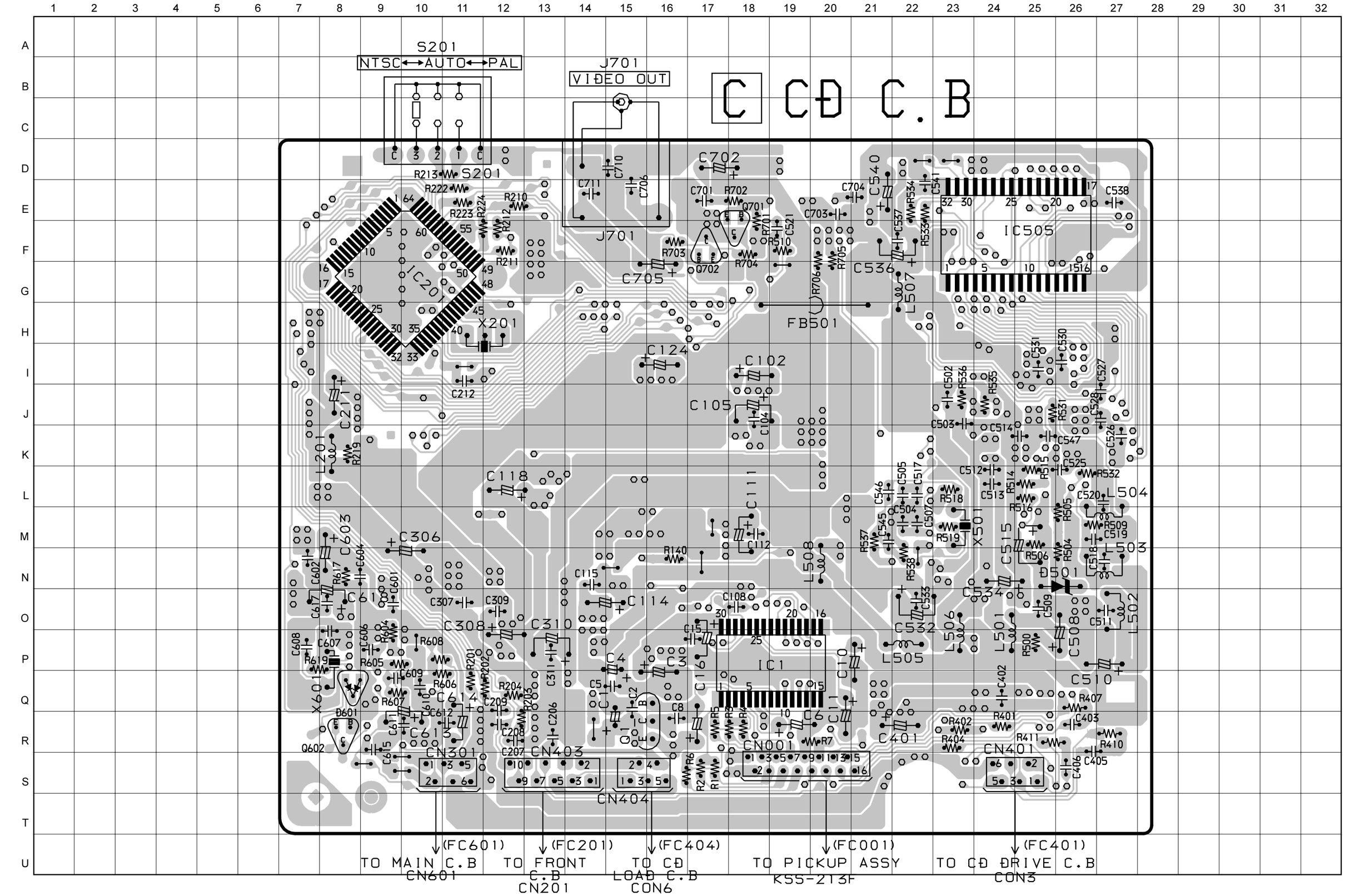

A MAIN C.B (2/2) (TUNER SECTION)
TO MAIN C.B (1/2) (AMP SECTION) (B1~B12)
B7 PLL CE
B3 DATA
B2 CLK
B4 TUNE/IFC
B1 TM BASE
B11 GND
B5 STEREO
B9 TUNER-L
B10 TUNER-R
B12 TUNER VM
B8 VCC
B6 TU ON
TUNER:8V
VCC
Q981 TUNER SW
Q981 CSC4115 BC
IC801 LA1844L-A DECODER
L801 FM DET-N
DC BALANCE/MONO DISTORTION ADJ
L802 PCFJZH-450L
AM IF ADJ
Q902 2SC2714 O FM MIXER
Q901 2SK360 E FM RF AMP
Q903 2SC5345 S FM OSC AMP
Q836 KRA107S FM BAND SW
Q835 FM IF AMP
L904 FM TRACKING ADJ.
L907 FM VT ADJ.
L951 (1/3) AMPACK4 AM TRACKING ADJ
L951 (2/3) AMPACK4
L951 (3/3) AMPACK4
*TP3, TP4 DC BALANCE
REG
AM LO
AM RF
S-CURVE
AGC
TUN-L
TUN-R
VM
J831
ANTENNA
FM 75Ω
AM LOOP
SIGNAL:
:FM/PB
:AM

SCHEMATIC DIAGRAM – 3 (FRONT)

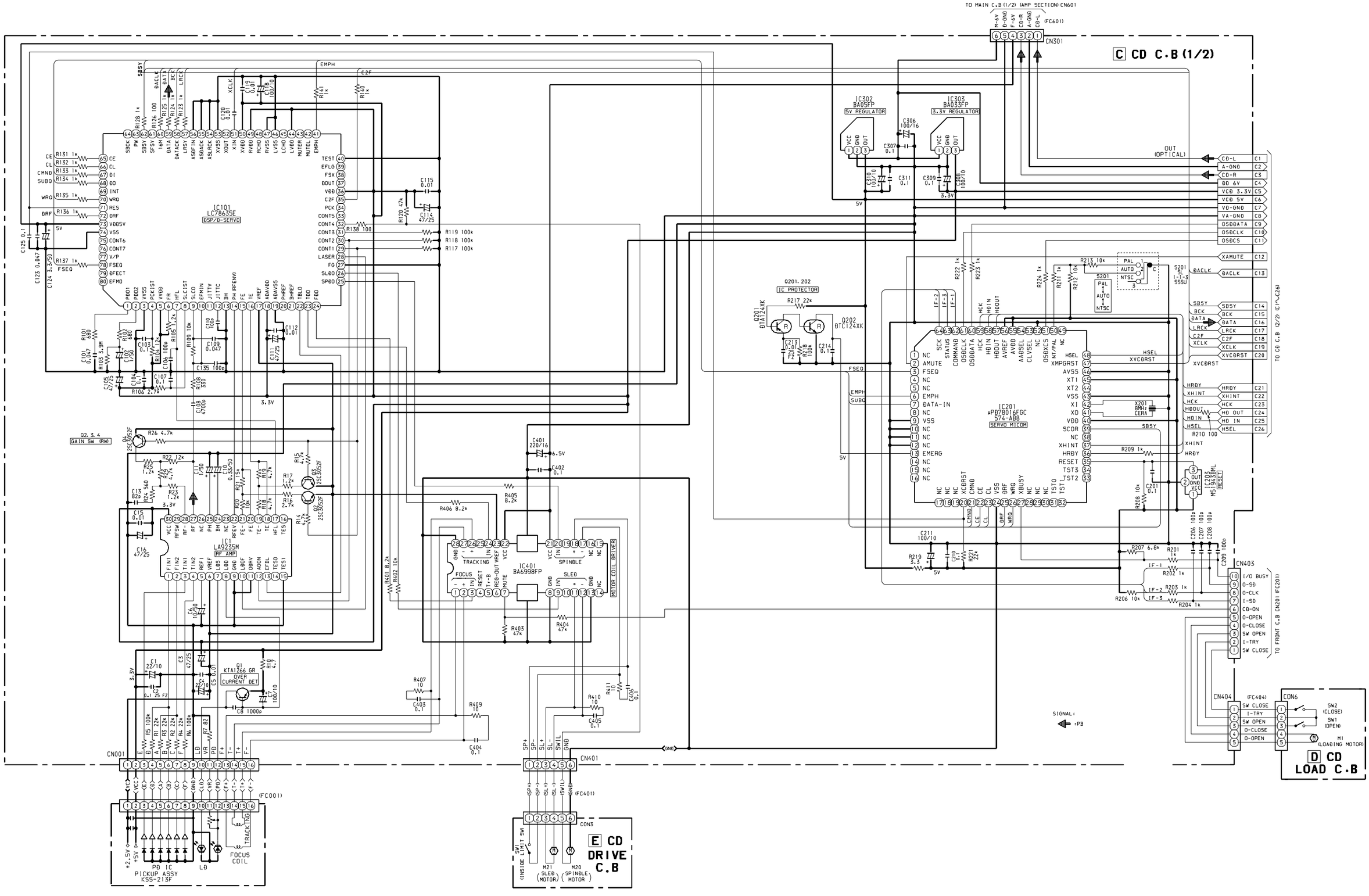


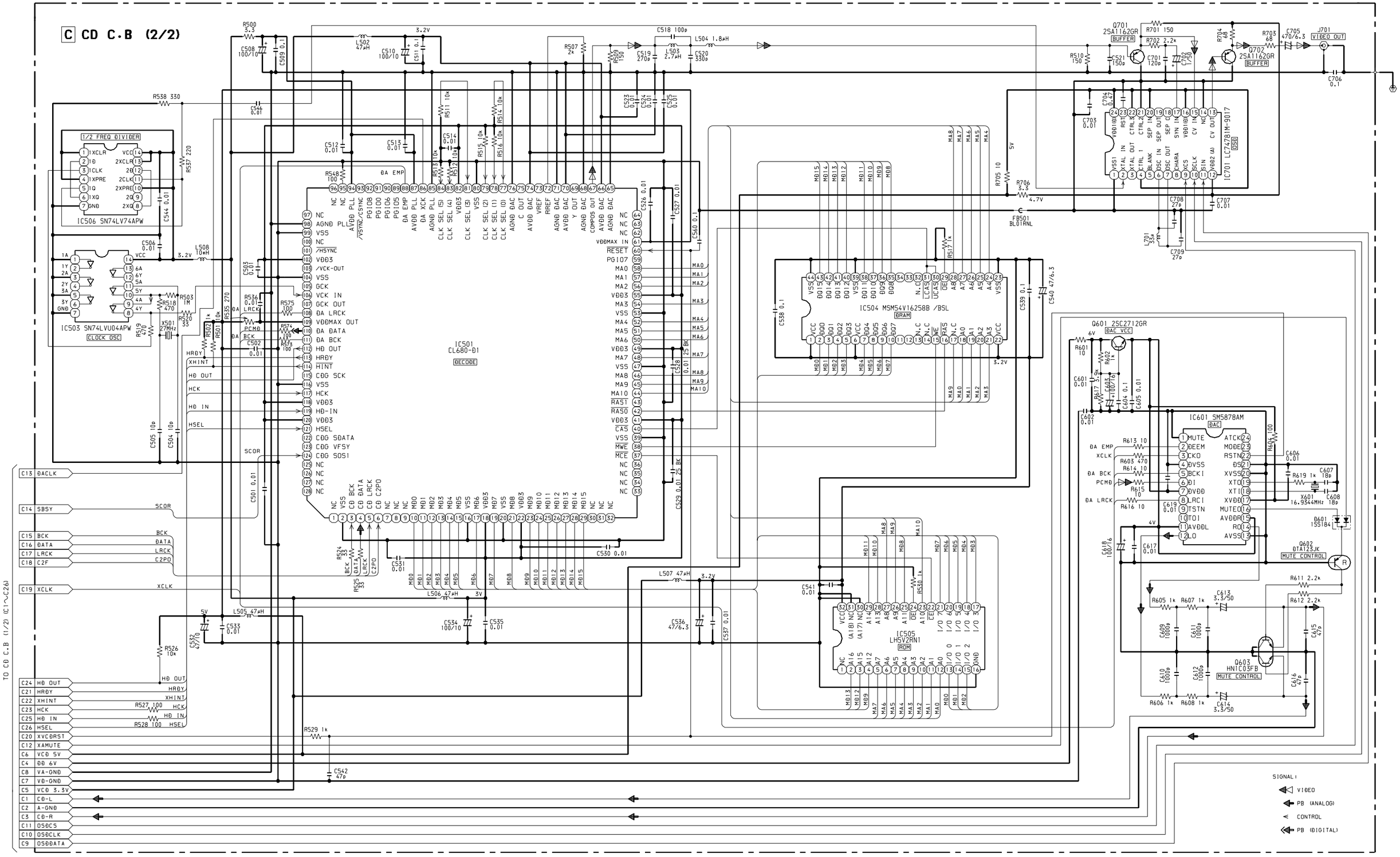
C CD C.B

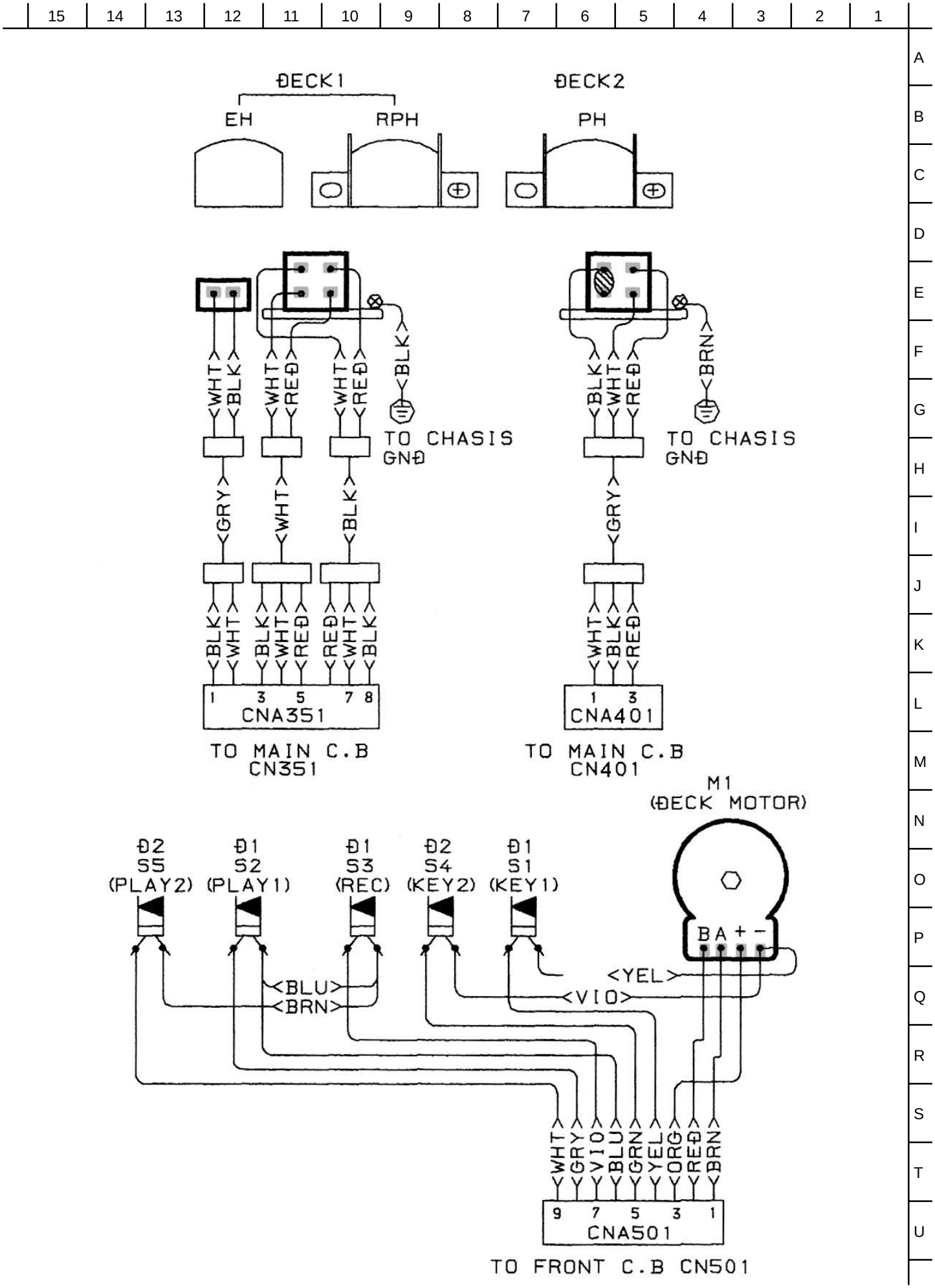

IC504
IC701
IC501
IC503
IC506
IC401
IC101
IC202
IC303
IC203
IC601
Q202
Q201
Q601
Q603
Q2
Q3
Q4
L701
C708
C709
C707
C539
C542
C125
C123
C101
C106
C107
C135
C109
C110
C119
C120
C544
C535
C516
C524
C506
C501
C529
C523
C560
C404
C6
C7
C13
C605
C619
C616
C210
C201
C213
C214
R530
R517
R525
R524
R523
R528
R527
R522
R573
R574
R575
R526
R520
R521
R571
R167
R548
R511
R513
R512
R503
R508
R507
R108
R109
R105
R104
R103
R102
R101
R137
R136
R135
R134
R133
R132
R131
R130
R129
R128
R127
R126
R125
R124
R123
R141
R138
R120
R119
R118
R117
R16
R20
R21
R17
R18
R19
R14
R15
R24
R26
R23
R22
R25
R29
R10
R406
R405
R409
R403
R207
R208
R221
R206
R216
R215
R217
R218
R601
R602
R613
R603
R614
R615
R616
R611
R609
R610
R612

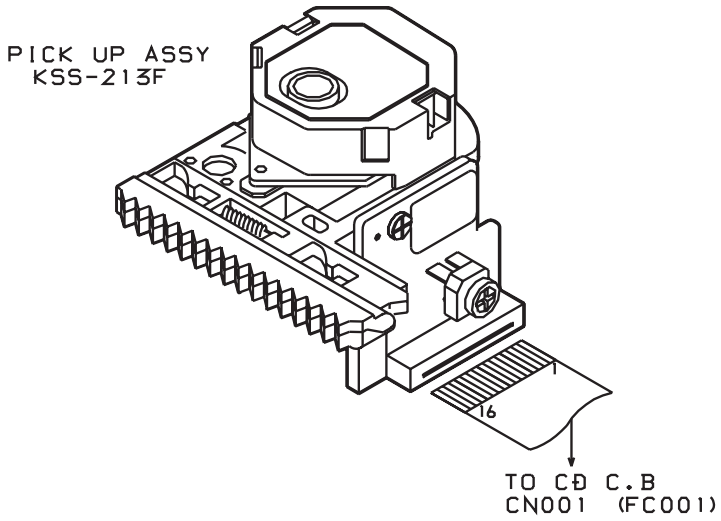

S201
NTSC↔AUTO↔PAL
J701
VIÐEO OUT
C CÐ C.B
IC201
IC505
IC1
X201
X501
X601
FB501
L507
L504
L503
L502
L505
L506
L501
D501
CN301
CN403
CN404
CN001
CN401
Q601
Q602
Q701
Q702
(FC601)
TO MAIN C.B
CN601
(FC201)
TO FRONT
C.B
CN201
(FC404)
TO CÐ
LOAÐ C.B
CON6
(FC001)
TO PICKUP ASSY
KSS-213F
(FC401)
TO CÐ ÐRIVE C.B
CON3

SCHEMATIC DIAGRAM – 4 (CD : 1 / 2 / CD LOAD / CD DRIVE)

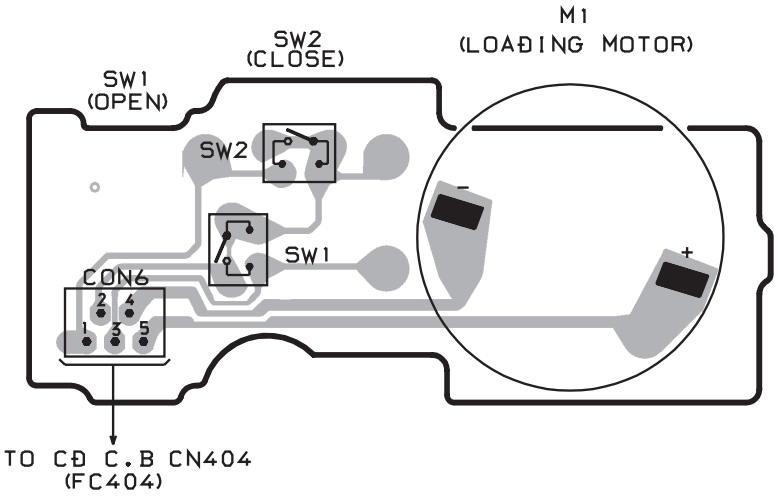



C CD C.B (2/2)
IC501 CL680-D1 DECODE
IC503 SN74LVU04APW CLOCK OSC
IC506 SN74LV74APW 1/2 FREQ DIVIDER
IC504 MSM54V16258B /BSL DRAM
IC505 LH5V2RN1 ROM
IC601 LC74781M-9017 OSD
IC601 SM5878AM DAC
Q701 2SA1162GR BUFFER
Q702 2SA1162GR BUFFER
Q601 2SC2712GR DAC VCC
Q602 DTA123JK MUTE CONTROL
Q603 HN1C03FB MUTE CONTROL
FB501 BLO1RNL
D601 1SS184
X501 27MHz
X601 16.9344MHz
J701 VIDEO OUT
TO CD C.B (1/2) (C1~C26)
SIGNAL:
VIDEO
PB (ANALOG)
CONTROL
PB (DIGITAL)

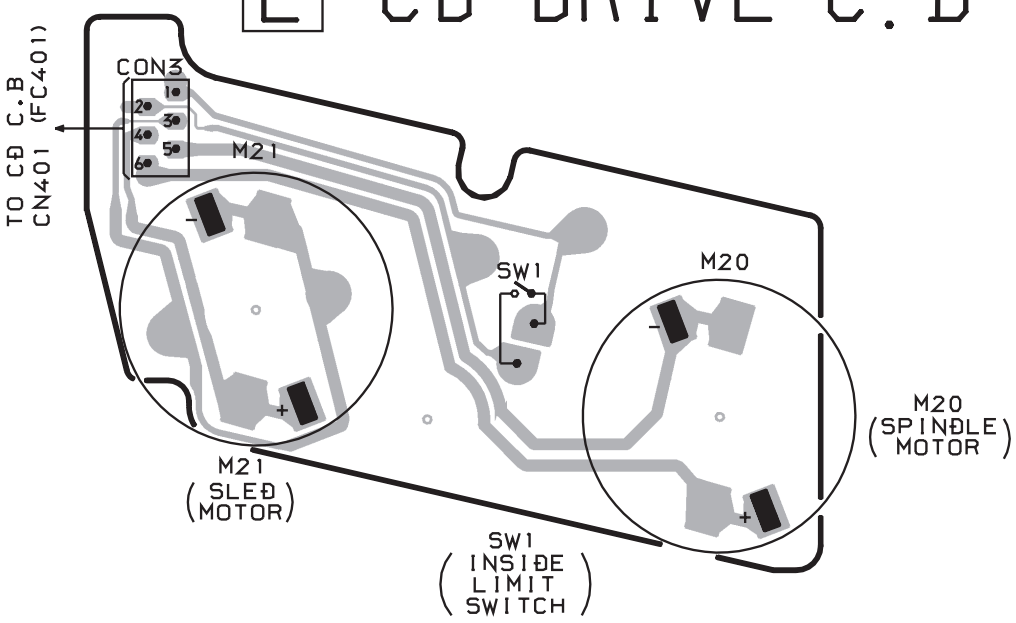

ĐECK1
EH
RPH
ĐECK2
PH
WHT
BLK
WHT
RED
WHT
RED
BLK
TO CHASIS
GND
GRY
WHT
BLK
BLK
WHT
BLK
WHT
RED
RED
WHT
BLK
1 3 5 7 8
CNA351
TO MAIN C.B
CN351
BLK
WHT
RED
BRN
TO CHASIS
GND
GRY
WHT
BLK
RED
1 3
CNA401
TO MAIN C.B
CN401
M1
(ĐECK MOTOR)
Đ2
S5
(PLAY2)
Đ1
S2
(PLAY1)
Đ1
S3
(REC)
Đ2
S4
(KEY2)
Đ1
S1
(KEY1)
B A + –
YEL
VIO
BLU
BRN
WHT
GRY
VIO
BLU
GRN
YEL
ORG
RED
BRN
9 7 5 3 1
CNA501
TO FRONT C.B CN501



D CD LOAD C.B

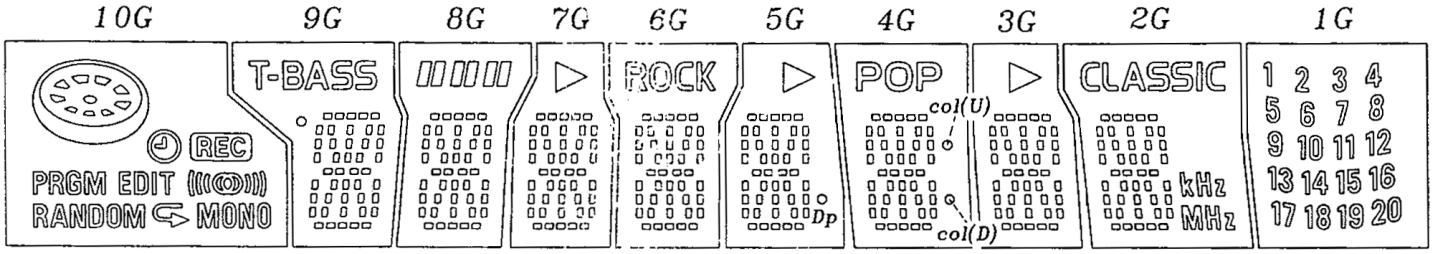


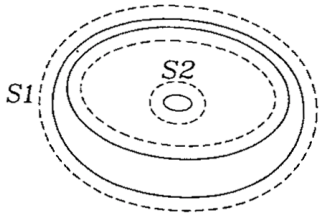
E CD DRIVE C.B

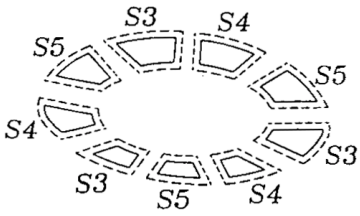


FL (HNA-10SS15T) GRID ASSIGNMENT & ANODE CONNECTION

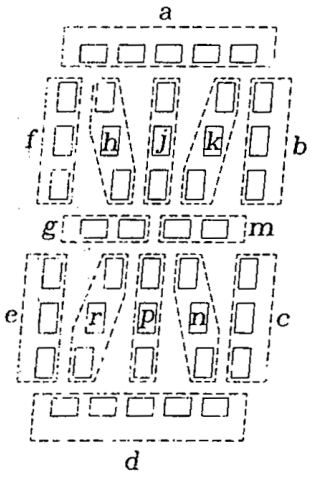
GRID ASSIGNMENT



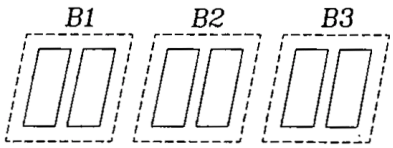




(10G)



(2G ~ 9G)



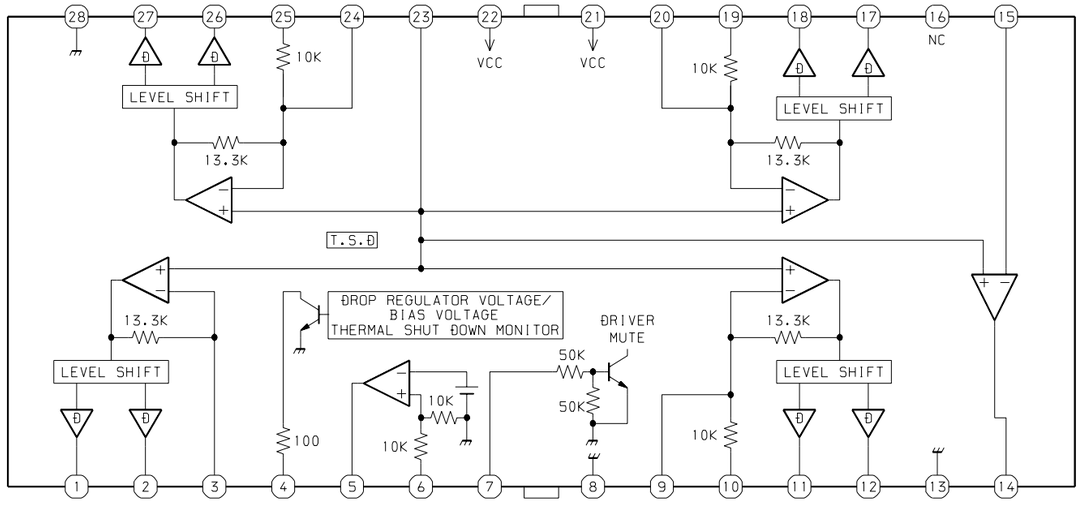
(8G)

ANODE CONNECTION

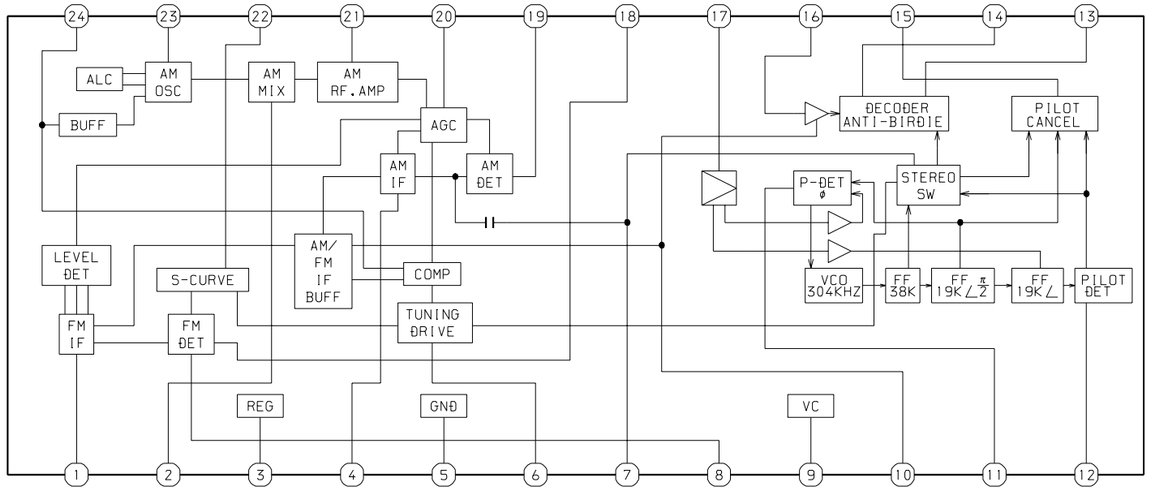
	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	MONO	d	d	d	d	d	d	d	d	20
P2	((◎))	n	n	n	n	n	n	n	n	19
P3	REC	p	p	p	p	p	p	p	p	18
P4	◎	r	r	r	r	r	r	r	r	17
P5	EDIT	e	e	e	e	e	e	e	e	16
P6	⇦	c	c	c	c	c	c	c	c	15
P7	RANDOM	g	g	g	g	g	g	g	g	14
P8	PRGM	m	m	m	m	m	m	m	m	13
P9	S5	f	f	f	f	f	f	f	f	12
P10	S4	b	b	b	b	b	b	b	b	11
P11	S3	k	k	k	k	k	k	k	k	10
P12	S2	j	j	j	j	j	j	j	j	9
P13	S1	h	h	h	h	h	h	h	h	8
P14	—	a	a	a	a	a	a	a	a	7
P15	—	T-BASS	B1	▷	ROCK	▷	POP	▷	CLASSIC	6
P16	—	○	B2	—	—	Dp	col(U)	—	MHz	5
P17	—	—	B3	—	—	—	col(D)	—	kHz	4
P18	—	—	—	—	—	—	—	—	—	3
P19	—	—	—	—	—	—	—	—	—	2
P20	—	—	—	—	—	—	—	—	—	1

IC BLOCK DIAGRAM

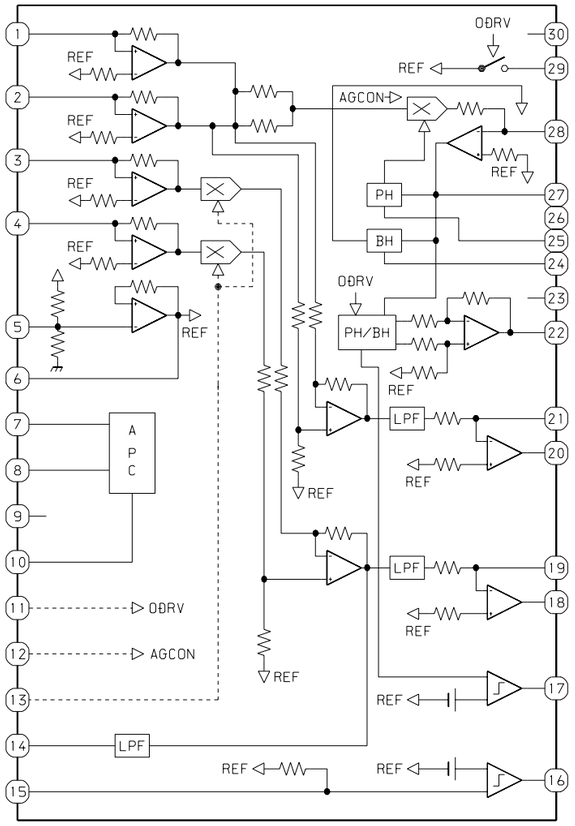
IC, BA6998FP



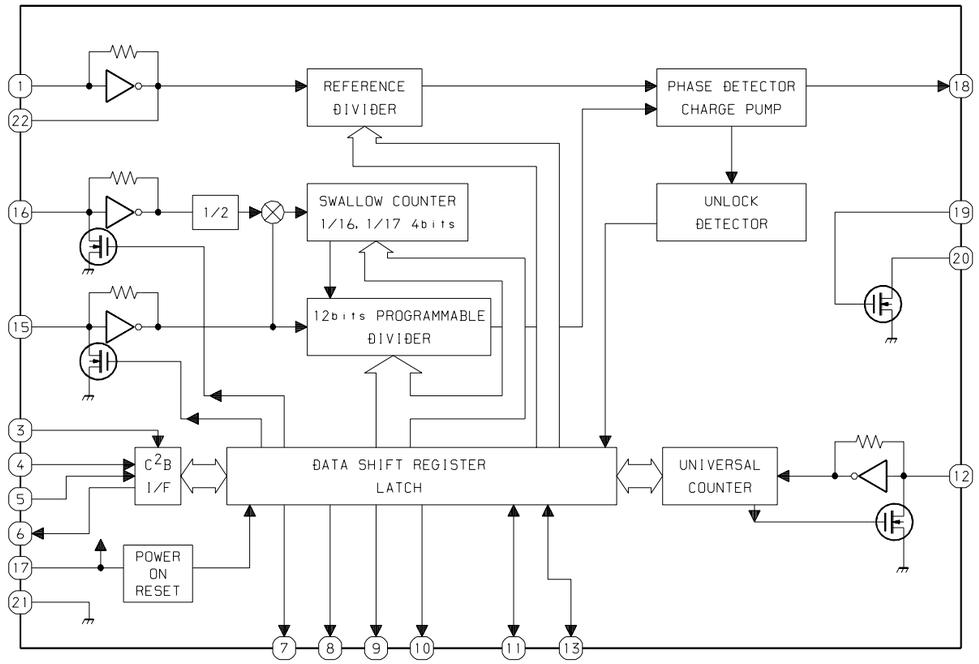
IC, LA1844L-A



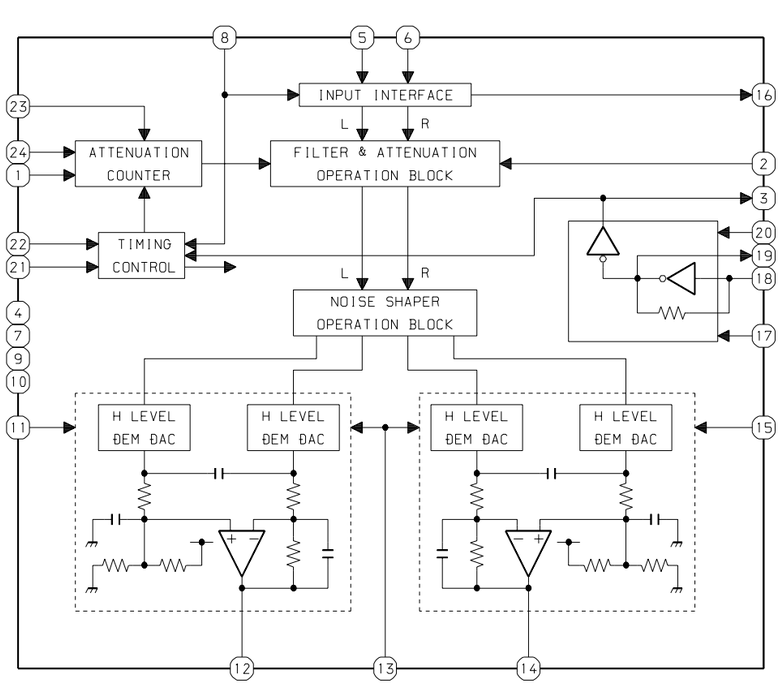
IC, LA9235M



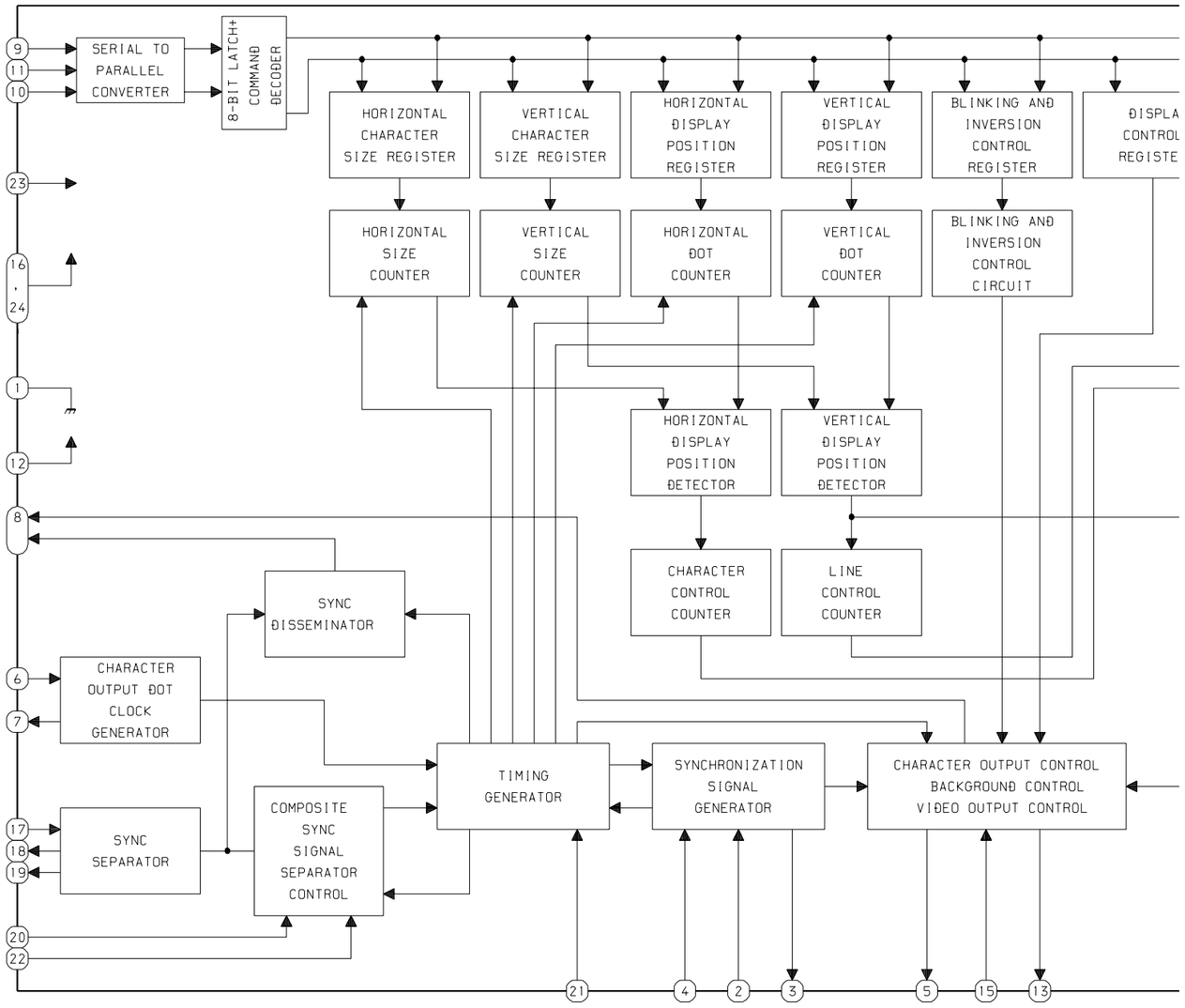
IC, LC72131D



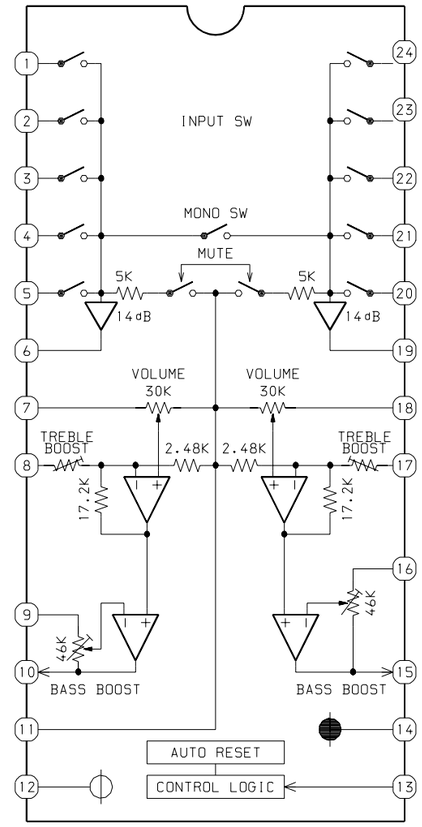
IC, SM5878AM



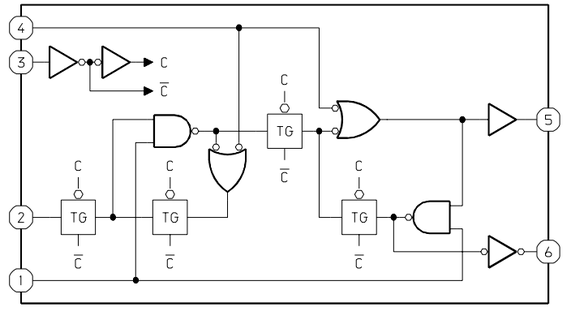
IC, LC74781M-9017



IC, M62495AFP



IC, SN74LV74APW



※ THE OTHER PAIR OF FLIP-FLOP NOT SHOWN

TRUTH TABLE

INPUTS				OUTPUTS	
$\overline{PRE}$	$\overline{CLR}$	CLK	D	Q	$\overline{Q}$
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H^F	H^F
H	H	↓	H	H	L
H	H	↓	L	L	H
H	H	↓	X	Q_0	$\overline{Q_0}$

H:HIGH LEVEL L:LOW LEVEL
X:IRRELEVANT F:NON-STABLE

IC DESCRIPTION

IC, M38B57MCH - E260FP

Pin No.	Pin Name	I/O	Description
1	NC	—	Connected to GND through a resistor.
2	$\overline{\text{I-HOLD}}$	I	Hold input.
3	I-TRAY SW	I	CD tray SW AD input.
4	I-D-SW	I	CD door open/close AD detection input. (Connected to GND through a resistor)
5	I-KEY2	I	Key AD input 2.
6	I-KEY1	I	Key AD input 1.
7	O-DSP DATA	—	Not used.
8	O-MOTOR	O	Cassette deck motor control output.
9	$\overline{\text{I-RMC}}$	I	System remote control signal input. (Active "L")
10	$\overline{\text{RESET}}$	I	Reset input for MICON.
11	I-$\overline{\text{STEREO}}$	I	Tuner stereo detect input.
12	O-DSC/ O-PLL.DATA	O	Function IC control output/PLL data output.
13	VSS	—	Connected to GND.
14	XIN	I	4.19MHZ oscillator circuit.
15	XOUT	O	4.19MHZ oscillator circuit.
16	VCC	—	Power supply.
17	$\overline{\text{O-PB1}}$	O	Cassette deck output switching $\overline{\text{PB1}}$/PB2.
18	O-POWER	O	Power control ON/$\overline{\text{OFF}}$ output.
19	O-C.SHIFT	O	Clock shift output for micro computer when tuner receiving broadcast.
20	O-RMT	O	REC MUTE output.
21	O-$\overline{\text{BIAS}}$	O	Bias $\overline{\text{ON}}$/OFF output.
22	O-TU ON	O	Tuner power supply ON/$\overline{\text{OFF}}$ output.
23	O-CD ON	O	CD power supply ON/$\overline{\text{OFF}}$ output.
24	O-CLK	O	PLL IC clock output.
25	I-TM BASE	I	Reference clock input for timer switch.
26	O-CLOSE	O	CD tray close data output.
27	O-OPEN	O	CD tray open data output.
28	VEE	—	Power supply for FL display.
29	O-STB (DSP)	—	Not used.
30	O-K-SCAN	O	Initial scan output.
31	O.PLL_CE	O	Tuner PLL IC chip enable output.
32	NC	—	Not connected.
33	G10	O	FL grid output (G10).
34	G9	O	FL grid output (G9).
35	G8	O	FL grid output (G8).
36	G7	O	FL grid output (G7).
37	G6	O	FL grid output (G6).
38	G5	O	FL grid output (G5).
39	G4	O	FL grid output (G4).
40	G3	O	FL grid output (G3).
41	G2	O	FL grid output (G2).

Pin No.	Pin Name	I/O	Description
42	G1	O	FL grid output (G1).
43	P22	—	Not used.
44	P21	—	Not used.
45	P20	O	FL segment output (P20).
46	P19	O	FL segment output (P19).
47	P18	O	FL segment output (P18).
48	P17	O	FL segment output (P17).
49	P16	O	FL segment output (P16).
50	P15	O	FL segment output (P15).
51	P14	O	FL segment output (P14).
52	P13	O	FL segment output (P13).
53	P12	O	FL segment output (P12).
54	P11	O	FL segment output (P11).
55	P10	O	FL segment output (P10).
56	P9	O	FL segment output (P9).
57	P8	O	FL segment output (P8).
58	P7	O	FL segment output (P7).
59	P6	O	FL segment output (P6).
60	P5	O	FL segment output (P5).
61	P4	O	FL segment output (P4).
62	I-TU3/P3	I/O	TU3 diode input/FL segment output (P3).
63	I-TU2/P2	I/O	TU2 diode input/FL segment output (P2).
64	I-TU1/P1	I/O	TU1 diode input/FL segment output (P1).
65	NC	—	Not connected.
66	NC	—	Not connected.
67	I-SD(V-CD)	I	CD IC control data input.
68	I/O BUSY(V-CD)	O	CD I/O BUSY line.
69	NC	I	Not connected.
70	NC	O	Not connected.
71	O-SD(V-CD)	O	CD IC control data output.
72	$\overline{\text{I-TUNE}}$/IFC	I	Tuner SD detection input/Tuner IF count input.
73	AVSS	—	Connected to GND.
74	VREF	—	Power supply.
75	O-CLK(V-CD)	O	CD IC clock output.
76	NC	—	Connected to GND through a capacitor.
77	NC	—	Connected to GND through a capacitor.
78	NC	—	Not connected.
79	NC	—	Connected to GND through a capacitor.
80	I-TP.SW	I	Deck mechanism SW AD input.

IC, LC78635E

Pin No.	Pin Name	I/O	Description
1	PDO1	O	Internal VCO control phase comparator output pin. (Pull down)
2	PDO2	O	Internal VCO control phase comparator output pin. OFF for rough servo, ON for phase servo. (Pull down)
3	VVSS	—	Internal VCO ground pin.
4	PCKIST	—	PDO output current adjustment resistor connection pin.
5	VVDD	—	Internal VCO power supply pin.
6	FR	—	VCO frequency range adjustment resistor connection pin. (Pull up)
7	HFL	I	Mirror detection signal input pin.
8	SLCIST	—	SLCO output current adjustment resistor connection pin.
9	SLCO	O	Control output.
10	EFMIN	I	EFM signal input pin.
11	JITTV	O	Jitter detection monitor pin. (Not used)
12	JITTC	O	Jitter detection monitor pin. (Pull down)
13	BH	I	BH signal input pin. (Connected to GND)
14	PH (RFENV)	I	PH signal or RFENV signal input pin.
15	FE	I	FE signal input pin.
16	TE	I	TE signal input pin.
17	VREF	I	VREF input pin.
18	ADAVDD	—	Servo A/D, D/A power supply pin.
19	ADAVSS	—	Servo A/D, D/A ground pin.
20	PHREF	O	PH reference output pin. (Not used)
21	BHREF	O	BH reference output pin. (Not used)
22	TBLO	O	Tracking balance output pin.
23	TDO	O	Tracking control output pin.
24	FDO	O	Focus control output pin.
25	SPDO	O	Spindle control output pin.
26	SLDO	O	Thread control output pin.
27	FG	I/O	Output driver VREF output pin. FG signal input pin. (Connected to GND)
28	LASER	O	Laser ON/OFF control pin.
29	CONT1	I/O	General-purpose input/output pin 1.
30	CONT2	I/O	General-purpose input/output pin 2.
31	CONT3	I/O	General-purpose input/output pin 3.
32	CONT4	I/O	General-purpose input/output pin 4.
33	CONT5	I/O	General-purpose input/output pin 5. (Not used)
34	PCK	O	EFM data playback clock monitor pin. Average 4.3218MHz when the phase is locked. (Not used)
35	C2F	—	C2 flag output pin.
36	VDD	—	Digital power supply pin.
37	DOUT	O	Digital out output pin. (EIAJ format). (Not used)
38	FSX	O	Output pin for the 7.35kHz synchronization signal divided from the crystal oscillator. (Not used)

Pin No.	Pin Name	I/O	Description
39	EFLG	O	C1, C2 error correction monitor pin. (Not used)
40	TEST	I	Test input pin. (Connected to GND)
41	EMPH	I/O	Emphasis pin. Which becomes an input pin after reset and can be controlled externally. This becomes an emphasis monitor pin under control by command.
42	MUTEL	O	L channel mute output pin. (Not used)
43	MUTER	—	R channel mute output pin. (Not used)
44	LVDD	—	L channel power supply pin.
45	LCHO	I	L channel output pin. (Not used)
46	LVSS	—	L channel ground pin.
47	RVSS	O	R channel ground pin.
48	RCHO	I	R channel output pin. (Not used)
49	RVDD	O	R channel power supply pin.
50	XVDD	O	Crystal oscillator power supply pin.
51	XIN	I	Connections for a 16.9344MHz crystal oscillator pin.
52	XOUT	O	Connections for a 16.9344MHz crystal oscillator pin. (Not used)
53	XVSS	I	Crystal oscillator ground pin.
54	ASLRCK	I	L/R clock input pin. (Connected to GND)
55	ASDACK	I	Bit clock input pin. (Connected to GND)
56	ASDFIN	—	L/R channel data input pin. (Connected to GND)
57	LRSY	—	L/R clock output pin.
58	DATACK	O	Bit clock output pin.
59	DATA	O	L/R channel data output pin.
60	16M	O	16.9344MHz output pin.
61	SFSY	O	Subcode frame synchronization signal output pin. This signal falls when the subcode is in the standby state.
62	SBSY	O	Subcode clock synchronization signal output pin. (Not used)
63	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not used)
64	SBCK	I	Subcode readout clock input pin. (Connected to GND)
65	CE	I	Chip enable signal input pin.
66	CL	I	Data transfer clock input pin.
67	DI	I	Data input pin.
68	DO	O	Data output pin.
69	INT	O	Interruption signal output pin. (Not used)
70	WRQ	O	Interruption signal output pin.
71	RES	I	Reset input pin. This pin must be set low briefly after power is first applied.
72	DRF	O	Focus ON detect pin.
73	VDD5V	—	Power Supply.
74	VSS	—	Connected to ground.
75	CONT 6	I/O	General-purpose input/output pin 6. (Not used)
76	CONT7	I/O	General-purpose input/output pin 7. (Not used)
77	V/P	O	Rough servo/phase control automatic switching monitor output pin. “H” for rough servo and “L” for phase servo. (Not used)

Pin No.	Pin Name	I/O	Description
78	FSEQ	O	Synchronization signal detection output pin. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree.
79	DFECT	I/O	Defect pin. Which becomes an input pin after reset and can be controlled externally. This becomes the defect monitor pin under control by command. (Not used)
80	EFMO	O	EFM signal output pin. (Not used)

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Pin No.	Pin Name	I/O	Description
1	NC	–	Not connected.
2	VSS	–	GND.
3	CD BCK	I	Bit clock input from CD DSP.
4	CD DATA	I	Data input from CD DSP.
5	CD LRCK	I	LRCK input from CD DSP.
6	CD C2PO	I	C2 pointer input from CD DSP.
7 ~ 9	NC	–	Not connected.
10 ~ 15	MD0 ~ MD5	I/O	DRAM/ROM interface. (DATA)
16	VSS	–	Ground.
17	MD6	I/O	DRAM/ROM interface. (DATA)
18	VDD3	–	Power supply 3.3V.
19	MD7	I/O	DRAM/ROM interface. (DATA)
20	VSS	–	Ground.
21	MD8	I/O	DRAM/ROM interface. (DATA)
22	VDD3	–	Power supply 3.3V.
23 ~ 29	MD9 ~ MD15	I/O	DRAM/ROM interface. (DATA)
30 ~ 36	NC	–	Not connected.
37	$\overline{\text{MCE}}$	–	ROM chip enable.
38	$\overline{\text{MWE}}$	O	DRAM write enable.
39	VSS	–	Ground.
40	$\overline{\text{CAS}}$	O	DRAM/ROM interface.
41	VDD3	–	Power supply 3.3V.
42	$\overline{\text{RAS0}}$	O	DRAM/ROM interface.
43	$\overline{\text{RAS1}}$	O	DRAM/ROM interface. (Not used)
44 ~ 46	MA10 ~ MA8	O	DRAM/ROM interface. (Address)
47	VSS	–	Ground.
48	MA7	O	DRAM/ROM interface. (Address)
49	VDD3	–	Power supply 3.3V.
50 ~ 52	MA6 ~ MA4	O	DRAM/ROM interface. (Address)
53	VSS	–	Ground.
54	MA3	O	DRAM/ROM interface. (Address)
55	VDD3	–	Power supply 3.3V.
56 ~ 58	MA2 ~ MA0	O	DRAM/ROM interface. (Address)
59	PGIO7	I/O	Programmable I/O. (Not used)
60	$\overline{\text{RESET}}$	I	Reset input.
61	VDD MAX IN	I	Power supply - VDDMAX. (5.0V)
62 ~ 64	NC	–	Not connected.
65	AGND DAC	–	Analog ground.
66	AVDD DAC	–	Analog power supply (DAC) : 3.3V.
67	COMPOS OUT	O	Composite out.
68	AGND DAC	–	Analog ground.

Pin No.	Pin Name	I/O	Description
69	YOUT	O	Video signal “Y” OUT. (Not used)
70	AVDD DAC	–	Analog power supply (DAC) 3.3V.
71	AGND DAC	–	Analog ground.
72	RREF	I	Reference resistor input.
73	VREF	I	Voltage reference input. (Not used)
74	AVDD DAC	–	Analog power supply (DAC) : 3.3V.
75	C OUT	O	Video signal “C” out. (Not used)
76	AGND DAC	–	Analog ground.
77 ~ 79	CLK SEL(0) ~ (2)	I	Clock selection input.
80	VSS	–	Ground.
81	CLK SEL(3)	I	Clock selection input.
82	VDD3	–	Power supply 3.3V.
83 ~ 84	CLK SEL(4) ~ (5)	I	Clock selection input.
85	AGND PLL	–	Analog ground.
86	DA XCK	I	DA XCK (16.933MHz) input.
87	AVDD PLL	–	Analog power supply 3.3V.
88	DA EMP	O	DAC-emphasis output.
89 ~ 90	PGIO5 ~ 6	I/O	Programmable I/O. (Not used)
91	PGIO0		
92	PGIO8		
93	$\overline{\text{VSYNC}}$/$\overline{\text{CSYNC}}$	O	$\overline{\text{VSYNC}}$/$\overline{\text{CSYNC}}$ output. (Not used)
94	AVDD PLL	–	Analog power supply (PLL) 3.3V.
95	NC	–	Connected to VSS through a resistor.
96 ~ 97	NC	–	Not connected.
98	AGND PLL	–	Analog ground.
99	VSS	–	Ground.
100	NC	–	Not connected.
101	$\overline{\text{HSYNC}}$	O	$\overline{\text{HSYNC}}$ output. (Not used)
102	VDD3	–	Power supply 3.3V.
103	VCK OUT	O	VCK out. (Not used)
104	VSS	–	Ground.
105	GCK	I	Global clock signal input. (42.3MHz) (Not used)
106	VCK IN	I	Video clock signal input. (27.0MHz)
107	GCK OUT	O	Global clock signal output. (27.0MHz) (Not used)
108	DA LRCK	O	DAC-LRCK output.
109	VDD MAX OUT	–	Power supply (VDD MAX) : 5.0V.
110	DA DATA	O	DAC-PCM data output.
111	DA BCK	O	DAC-BIT clock output.
112	HD OUT	O	Micon interface. (Data out)
113	HRDY	O	Micon interface. (Host ready)
114	$\overline{\text{HINT}}$	O	Micon interface. (Host interrupt)

Pin No.	Pin Name	I/O	Description
115	CDG SCK	I	CD-G serial clock input.
116	VSS	–	Ground.
117	HCK	I	Micon interface. (Host clock)
118	VDD3	–	Power supply 3.3V.
119	HD-IN	I	Micon interface. (Host data in)
120	VDD3	–	Power supply 3.3V.
121	HSEL	I	Micon interface. (Host select in)
122	CDG SDATA	I	CD-G data input. (Not used)
123	CDG VFSY	I	CD-G VFSY input. (Not used)
124	CDG SOSI	I	CD-G SOSI input.
125 ~ 128	NC	–	Not connected.

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Pin No.	Pin Name	I/O	Description
1	NC	–	Not connected.
2	AMUTE	O	Audio analog mute ("H" = Mute ON).
3	FSEQ	I	Synchronization signal detection input pin. Inputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree. (Not used)
4	NC	–	Not connected.
5	NC	–	Not connected.
6	EMPH	I	Emphasis input terminal.
7	DATA IN	I	Data input pin.
8	NC	–	Not connected.
9	VSS	–	GND.
10~12	NC	–	Connected to GND.
13	EMERG	I	Power emergency stop (L*3sec = STOP).
14 ~ 19	NC	–	Not connected.
20	XCDRST	O	CD reset output terminal.
21	CMND	O	DATA output pin.
22	CE	O	Chip enable signal output pin.
23	CL	O	Data transfer clock output pin.
24	VSS	–	GND.
25	DRF	I	Focus ON detect pin.
26	WRQ	I	Interruption signal input pin.
27	XBUSY	I/O	READY/BUSY I/O to HOST OD.
28 ~ 30	NC	–	Not connected.
31 ~ 34	TST0 ~ TST3	I/O	Check Land. (Not used)
35	RESET	I	Reset.

Pin No.	Pin Name	I/O	Description
36	HRDY	I	HRDY from CL680.
37	XHINT	I	HINT from CL680
38	NC	–	Not connected.
39	SCOR	I	SCOR from CD.
40	VDD	–	5.0VDD.
41	XO	O	8.0MHz ceralock.
42	XI	I	
43	VSS	–	GND.
44	XT2	–	Not used.
45	XT1	I	Connected to VDD.
46	AVSS	–	GND.
47	XMPGRST	O	MPEG block IC reset.
48	HSEL	O	Address/Data SEL to CL680.
49	NC	–	Not connected.
50	NT/PAL	–	NTSC/PAL mode select.
51	OSDXCS	O	OSD chip select.
52	NC	–	Connected to GND.
53	CLVSEL	I	CLV mode select ("H" = CLV-N). (Not used)
54	AADSEL	I	Auto adjust select ("H" = Auto ON). (Not used)
55	AVDD	–	5.0VDD.
56	AVREF		
57	HDOUT	I	HD-OUT from CL680.
58	HDIN	O	HD-IN to CL680.
59	HCK	O	HCK to CL680.
60	OSDDATA	O	OSD data.
61	OSDCLK	O	OSD clock.
62	COMMAND	I	COMMAND from host.
63	STATUS	O	STATUS to host.
64	SCK	I	SCK from host.

ADJUSTMENT <TUNER / DECK / FRONT>

< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to AM 1710kHz and check that the test point is 2160kHz ± 45Hz.

2. AM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to AM 1710kHz, 530kHz and check that the test point is less than 8.5V (1710kHz) and more than 0.6V (530kHz).

3. FM VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L907
   Method : Set to FM 108.0MHz and adjust L907 so that the test point is 7.0V ± 50mV.

4. AM Tracking Adjustment
   Settings : • Test point : TP5 (Lch), TP6 (Rch)
   • Adjustment location :
   L951(1/3) 999kHz
   Method : Set to AM 1000kHz and adjust L951(1/3) to MAX.

5. FM Tracking Adjustment
   Settings : • Test point : TP5 (Lch), TP6 (Rch)
   • Adjustment location : L904
   Method : Set to FM 87.5MHz and adjust L904 so that the test point is maximum.

6. AM IF Adjustment
   Settings : • Test point : TP5 (Lch), TP6 (Rch)
   • Adjustment location :
   L802 ..... 450kHz

7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC Balance)
   : TP5 (Lch), TP6 (Rch) (Distortion)
   • Adjustment location : L801
   • Input level : 60dBµV
   Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 is 0V ± 0.04V. Then check the distortion is less than 1.3%

< DECK SECTION >

1. Tape Speed Adjustment (DECK 1)
   Settings : • Test tape : TTA–100
   • Test point : TP5 (Lch), TP6 (Rch)
   • Adjustment location : SFR501
   Method : Play back the test tape and adjust SFR501 so that the frequency counter reads 3000Hz ± 5Hz (FWD) and ± 45Hz (REV) with respect to forward speed.

2. Head Azimuth Adjustment (DECK 1, DECK 2)
   Settings : • Test tape : TTA–330
   • Test point : TP5 (Lch), TP6 (Rch)
   • Adjustment location : Head azimuth adjustment screw
   Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

3. PB Frequency Response Check (DECK 1, DECK 2)
   Settings : • Test tape : TTA–330
   • Test point :TP5 (Lch), TP6 (Rch)
   Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is 0dB ± 4dB.

4. REC/PB Frequency Response Check (DECK 1)
   Settings : • Test tape : TTA–602
   • Test point : TP5 (Lch), TP6 (Rch)
   Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP5, TP6 becomes 80mV. Record and play back the 1kHz and 8kHz signal and check that the output of the 8kHz signals is 0dB ± 5dB with respsct to that of the 1 kHz signal.

5. REC/PB Sensitivity Check (DECK 1)
   Settings : • Test tape : TTA–602
   • Test point : TP5 (Lch), TP6 (Rch)
   • Input signal : 1kHz (LINE IN)
   Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP5, TP6 becomes 8mV. Record and play back the 1kHz signals and check that the output is –2dB ± 3.5dB.

6. PB Sensitivity Check (DECK 1, Deck 2)
   Settings : • Test tape : TTA–200
   • Test point :TP5 (Lch), TP6 (Rch)
   Method : Play back the test tape and check that the output level of the test point is 110mV ± 3.5dB.

< FRONT SECTION >

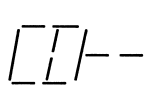
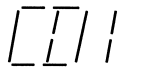
1. µ-CON OSC Adjustment
   Settings : • Test point : TP7 and TP8 (GND)
   • Adjustment location : L501
   Method : Insert AC plug while pressing TUNER function key. Adjust L501 so that the frequency at the test point is 233.4Hz ± 0.23Hz.

CD TEST MODE

1. How to Activate CD Test Mode
   Insert the AC plug while pressing the function CD button.
   All FL display tubes will light up, and the test mode will be activated.

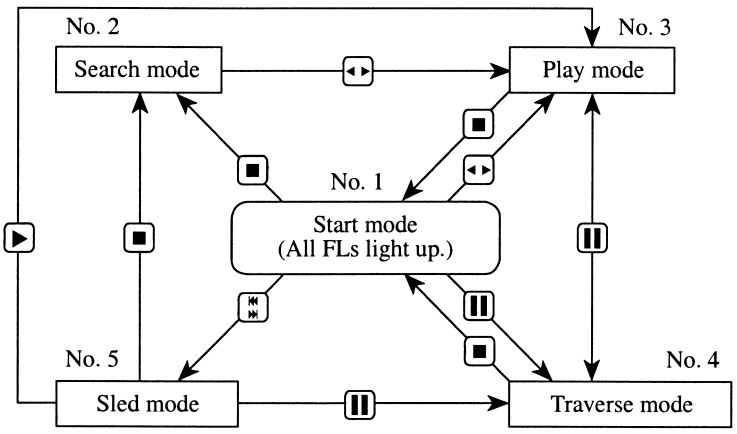
2. How to Cancel CD Test Mode
   Either one of the following operations will cancel the CD test mode.
   - Press the function button. (except CD function button)
   - Press the power switch button.
   - Disconnect the AC plug

3. CD Test Mode Functions
   When test mode is activated, the following mode functions from No.1 to No.5 can be used by pressing the operation keys.

Mode/No.	Operation	FL display	Operation	Contents
Start mode No.1	Activation	All lamps light	• Test mode is activated. • CD block power is ON.	• FL display check (All displays light.)
Search mode No.2	■ key		• Laser diode turns always ON. • Continual focus search (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes. * NOTE 1	• APC circuit check • Laser current measurement (Laser current control. Across a resistor connected between emitter and GND.) FOCUS SERVO • Check focus search waveform • Check focus error waveform (FOK/FZC are not monitored in the search mode)
Play mode No.3	◀ ▶ key		• Normal playback • Focus search is continued if TOC cannot be read. * NOTE 1	FOCUS SERVO/TRACKING SERVO CLV SERVO/SLED SERVO Check DRF
Traverse mode No.4	❚❚ key		• During normal disc playback Press once; tracking servo OFF Press twice; tracking servo ON * NOTE 2	TRACKING SERVO ON/OFF Tracking balance (traverse) check
Sled mode No.5	⏮ key ⏭	All lamps light	• Pickup moves to the outermost track • Pickup moves to the innermost track * NOTE 3 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

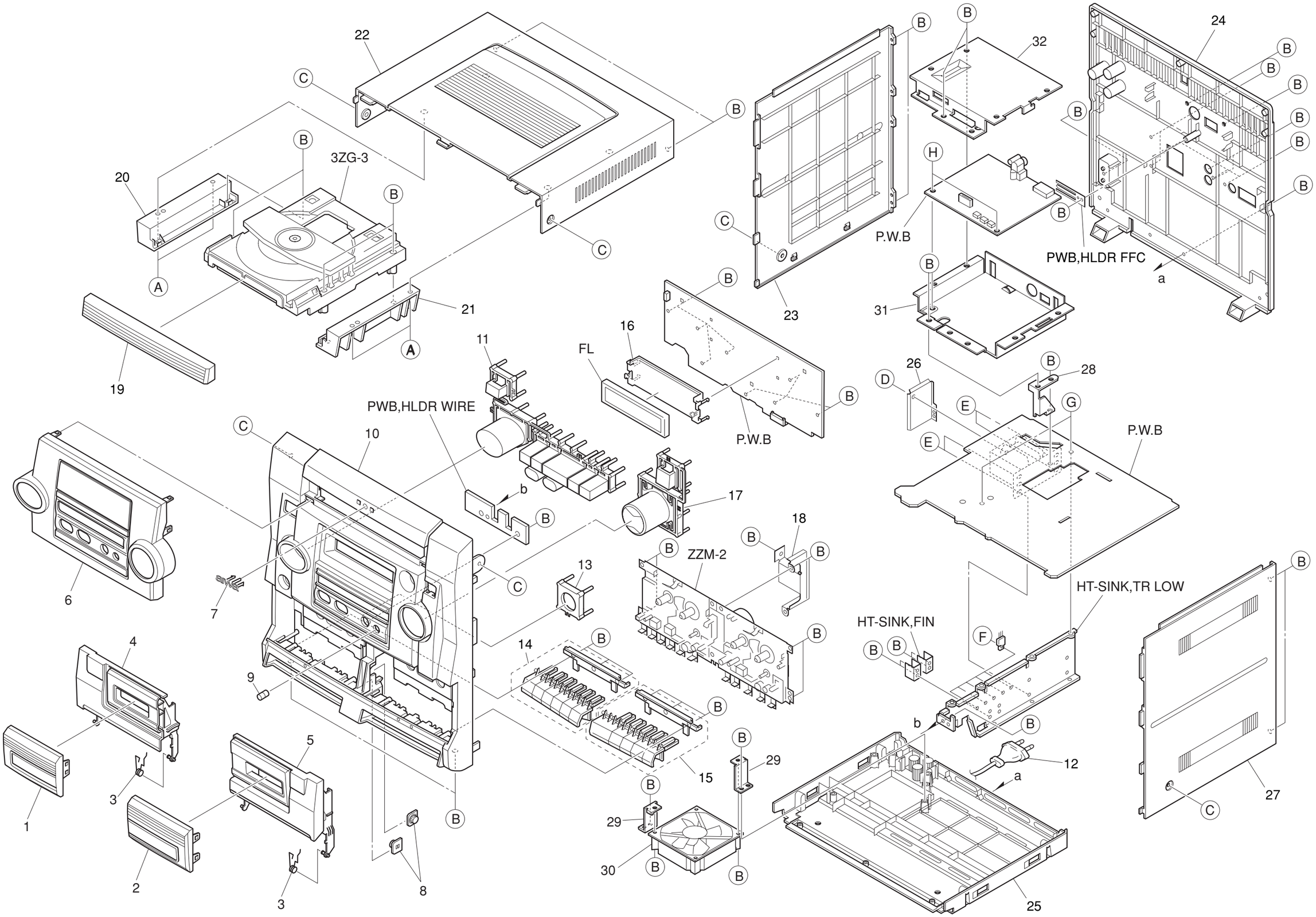
* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.
* NOTE 2: Do not press the ⏮ or ⏭ keys when the machine is in the ❚❚ status is active. If they are pressed, playback will not be possible after the ❚❚ status has been canceled. If the ⏮ or ⏭ keys are pressed in the ❚❚ status, press the ■ key and return to the start mode (No.1).
* NOTE 3: When pressing the ⏮ or ⏭ keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮ or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline
   The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.



If the DISC DIRECT PLAY button is pressed, the machine performs the same operation as the PLAY button is pressed as shown. If the tray is opened by pressing OPEN/CLOSE button during Play mode or Traverse mode, the machine returns to the Start mode.

MECHANICAL EXPLODED VIEW 1 / 1



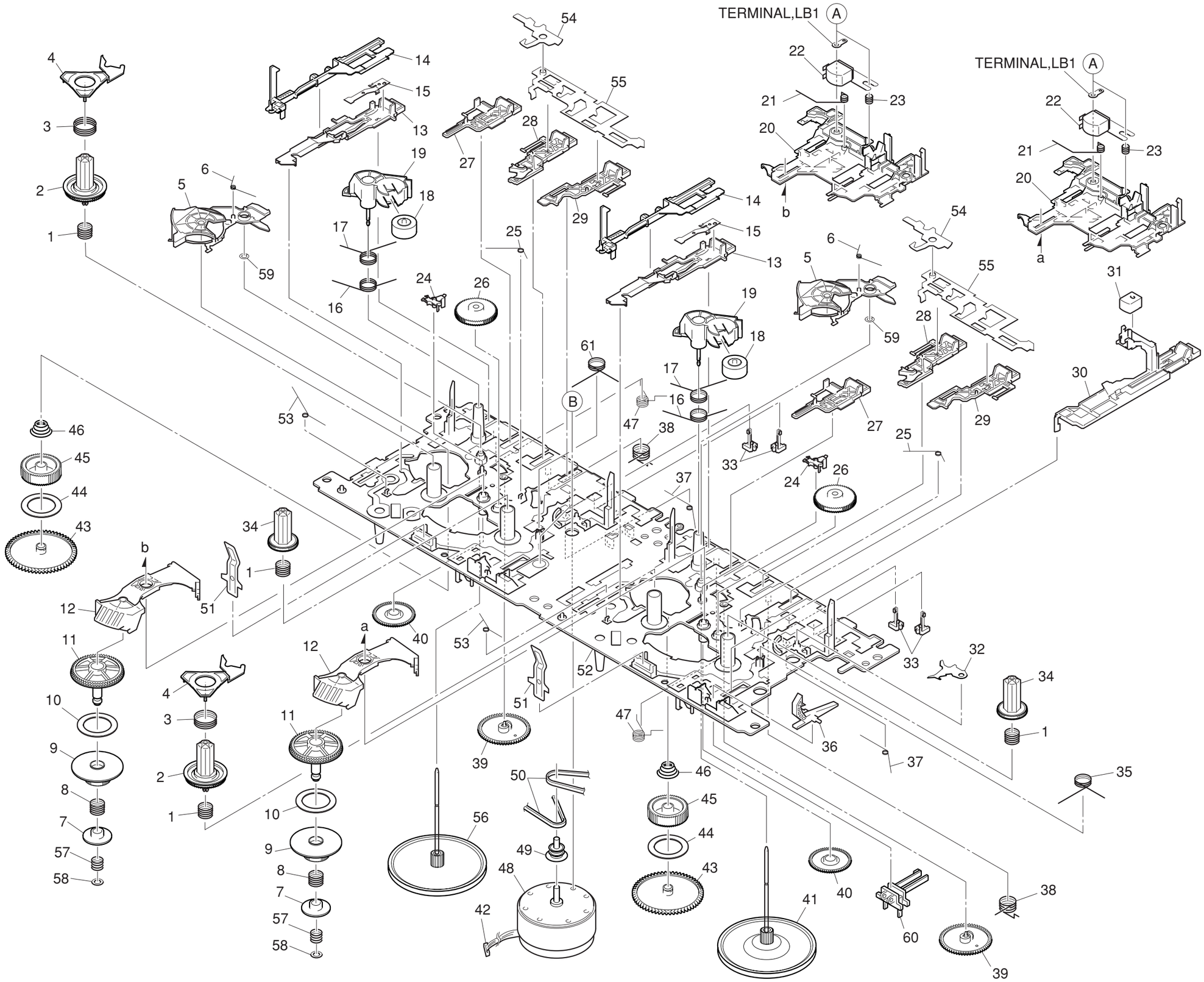
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NEC-006-010		WINDOW,CASS 1
2	8A-NEC-007-010		WINDOW,CASS 2
3	82-NF7-218-010		SPR-T,CASS
4	8A-NEC-002-010		BOX,CASS 1
5	8A-NEC-003-010		BOX,CASS 2
6	8A-NHC-002-010		WINDOW,DISP HR VCD
7	87-CE3-023-010		BADGE,AIWA 30N SILV
8	86-NFZ-231-010		DMPR,70
9	8Z-NF8-028-110		KNOB,RTRY MIC
10	8A-NHC-005-010		CABI,FR HR VCD
11	8A-NHC-001-010		KEY,POWER VCD
⚠ 12	87-A80-157-010		AC CORD ASSY,E BLK CC
13	8A-NEC-041-010		PLATE,MIC
14	8A-NEC-010-010		KEY,CASS 1
15	8A-NEC-011-010		KEY,CASS 2
16	8A-NFA-208-010		GUIDE,FL 100-25 ANFA
17	8A-NEC-009-010		KEY,OPEN/CLOSE
18	8A-NEC-206-010		HLDR,DECK
19	8A-NEC-004-010		PANEL,TRAY CD
20	8A-NEC-203-010		HLDR,CD L
21	8A-NEC-204-010		HLDR,CD R
22	8A-NEC-015-010		PANEL,TOP
23	8A-NEC-013-010		PANEL,LEFT
24	8A-NHC-003-010		CABI,REAR HRJ VCD
25	8A-NHC-210-010		CABI,BOTTOM VCD
26	8A-NEC-201-110		HLDR,PT
27	8A-NEC-014-010		PANEL,RIGHT
28	8A-NHC-202-010		HLDR,VCD
29	8A-NHC-206-010		HLDR,FAN
30	87-A91-751-010		FAN,DSB0812M-S382 -400MM
31	8A-NHC-201-010		COVER, VCD BOTTOM
32	8A-NHC-203-010		COVER, VCD TOP
A	87-067-822-010		BVT2+3-20 W/O SLOT
B	87-067-703-010		TAPPING SCREW, BVT2+3-10
C	87-067-641-010		UTT2+3-8(W/O SLOT)BL
D	87-571-092-410		TAPPING SCREW, VIT+3-4
E	87-067-975-010		S-SCREW,IT+4-8
F	87-067-001-010		S-SCREW,BVWWST2+3-12 W/O SLOT
G	87-067-579-010		TAPPING SCREW, BVT2+3-8
H	87-067-584-010		TAPPING SCREW, BVT2+3-6

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue				

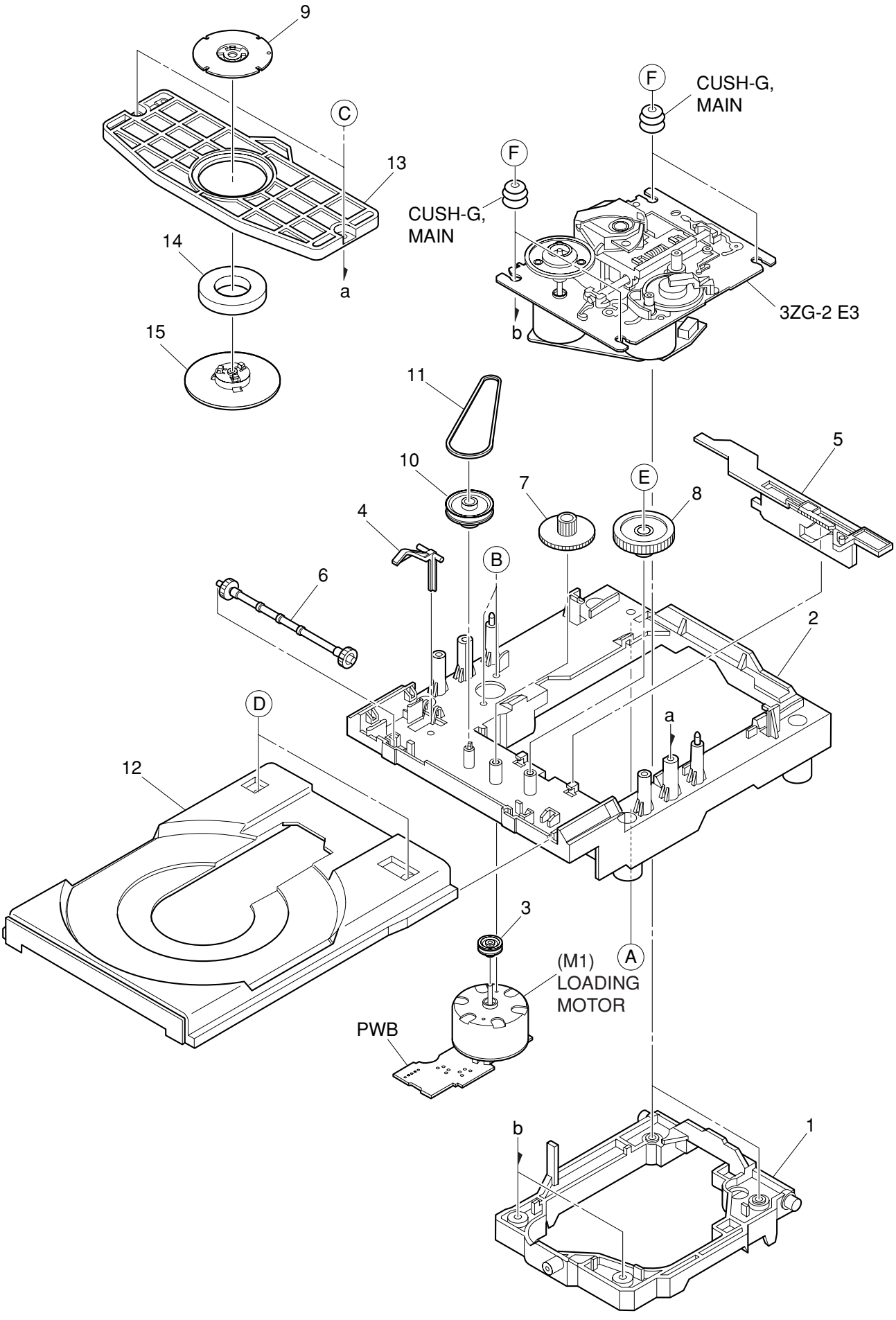
TAPE MECHANISM EXPLODED VIEW 1 / 1



TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-310		SPR-C,REEL R
2	8Z-ZM1-225-110		GEAR,REEL R
3	8Z-ZM1-253-210		SPR-C,AUTO SENSOR
4	8Z-ZM1-217-110		LEVER,AUTO SENSOR
5	8Z-ZM1-212-210		LEVER,T-UP
6	8Z-ZM1-245-310		SPR-T,AUTO
7	8Z-ZM1-236-010		CLR,SLIP FF/REW
8	8Z-ZM1-252-110		SPR-C,FF/REW
9	8Z-ZM2-213-010		GEAR,SLIP FR A ZZM-2
10	8Z-ZM1-269-010		FELT,FF/REW 2
11	8Z-ZM1-238-110		GEAR,SLIP FF/REW B 2
12	8Z-ZM1-237-110		LEVER,FF/REW 2
13	8Z-ZM1-209-510		LEVER,PAUSE
14	8Z-ZM1-218-210		LEVER,E-LOCK H
15	8Z-ZM1-256-010		SPR-P,PAUSE
16	8Z-ZM1-244-110		SPR-T,T-UP
17	8Z-ZM1-247-310		SPR-T,PINCH
18	8Z-ZM1-261-110		ROLLER ASSY,PINCH
19	8Z-ZM1-221-210		LEVER,PINCH
20	8Z-ZM1-205-310		LEVER,PLAY
21	8Z-ZM1-248-210		SPR-T,BRG
22	87-A90-403-110		HEAD,RPH MS15R
23	84-ZM2-227-310		SPR-C,AZIMUTH
24	8Z-ZM1-216-110		LEVER,AUTO
25	8Z-ZM1-246-110		SPR-T,AUTO 2
26	8Z-ZM2-214-110		GEAR,IDL REW ZZM-2
27	8Z-ZM2-212-010		LEVER,STOP ZZM-2
28	8Z-ZM1-207-010		LEVER,FF
29	8Z-ZM1-206-010		LEVER,REW
30	8Z-ZM1-210-010		LEVER,REC
31	87-A90-404-010		HEAD,EH LE15B
32	8Z-ZM2-218-010		LEVER,REC LOCK ZZM-2
33	87-A91-492-010		SW,LEAF MSW18560
34	8Z-ZM1-226-010		GEAR,REEL L
35	8Z-ZM1-241-210		SPR-T,PLAY
36	8Z-ZM1-220-110		LEVER,REC SENSOR
37	8Z-ZM1-249-210		SPR-T,FR
38	8Z-ZM1-242-310		SPR-T,FF/REW
39	8Z-ZM3-244-110		GEAR,CAM TD20
40	8Z-ZM1-232-010		GEAR,IDL FF/REW
41	8Z-ZM3-228-110		FLY-WHL,M3
42	8Z-ZM2-601-010		CONN ASSY,9P ZZM-2
43	8Z-ZM1-228-010		GEAR,SLIP T-UP B
44	8Z-ZM1-265-010		FELT,T-UP
45	8Z-ZM1-227-010		GEAR,SLIP T-UP A
46	8Z-ZM1-251-210		SPR-C,T-UP SLIP
47	8Z-ZM1-243-310		SPR-T,STOP/PAUSE
48	87-A91-532-010		MOT,MS15U2LW1A
49	8Z-ZM1-235-010		PULLEY,MOT
50	8Z-ZM2-216-010		BELT,MAIN M
51	8Z-ZM1-260-010		SPR-P,CASETTE
52	8Z-ZM2-201-510		CHAS ASSY,ZZM-2
53	8Z-ZM1-255-310		SPR-T,E-LOCK
54	8Z-ZM2-219-010		LEVER,E-OPEN ZZM-2
55	8Z-ZM1-214-310		LEVER,LOCK
56	8Z-ZM2-211-210		FLY-WHL,ZZM-2
57	8Z-ZM1-257-110		SPR-C,F/R
58	8Z-ZM1-275-010		W-L,1.47-4-0.25
59	87-B10-301-010		W-L,1.63-3.2-0.5 SLIT
60	87-A91-494-010		SW,LEAF MSW17820
61	8Z-ZM1-241-010		SPR-T,PLAY
A	84-ZM2-242-010		S-SCREW,AZ1-2-6.4
B	8Z-ZM2-220-110		V+2.6 ZZM-2

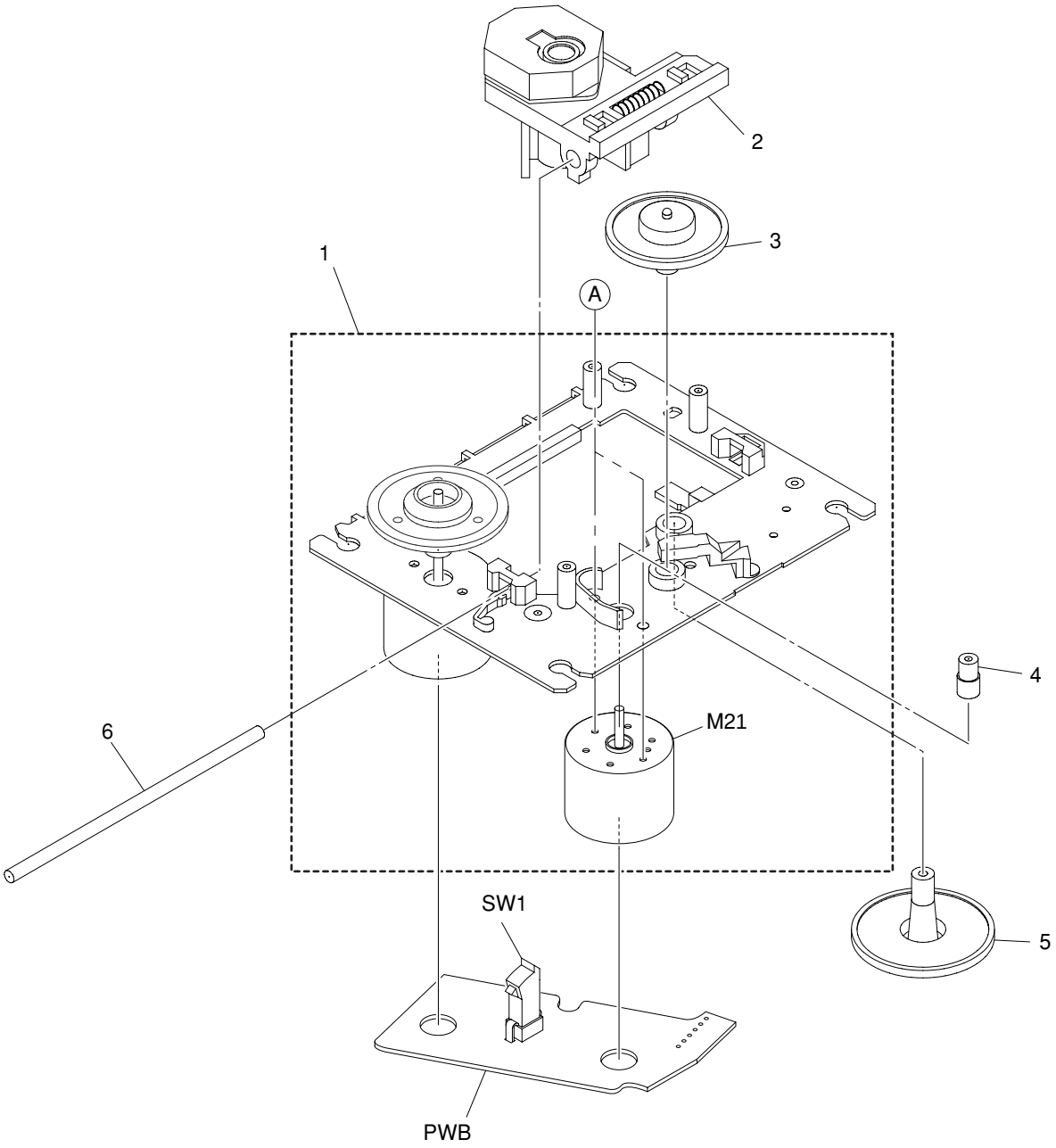
CD MECHANISM EXPLODED VIEW 1 / 2 (3ZG-3 E8NM)



CD MECHANISM PARTS LIST 1 / 2 (3ZG-3 E8NM)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG3-224-519	1B	HLDR M2
2	83-ZG3-228-619	1C	CHAS,L6
3	83-ZG3-208-019	0E	PULLEY,MOTOR
4	83-ZG3-213-019	0E	LVR,SW
5	83-ZG3-209-619	1A	CAM,SLIDE
6	83-ZG3-207-619	0E	GEAR,TRAY
7	83-ZG3-204-21M	0E	GEAR,C
8	83-ZG3-205-019	0E	GEAR,D
9	83-ZG3-211-01K	0E	PLATE,DISC
10	83-ZG3-220-21M	0E	GEAR,PULLEY 2
11	83-ZG3-214-019	0E	BELT,L
12	83-ZG3-229-51K	1C	TRAY,CD 2
13	83-ZG3-210-119	1B	HLDR,CHUCK
14	83-ZG3-604-010	0E	RING,MAG 2
15	83-ZG3-212-019	0E	CAP,DISC
A	87-067-945-119	0E	VFT2+3-12(F10)
B	87-251-071-410	0E	U+2.6-4
C	83-ZG3-235-010	0E	VFT2+2.6-8
D	87-352-075-219	0E	VT2+2.6-10
E	83-ZG3-217-019	0E	S-SCREW,GEAR D
F	81-ZG1-254-019	0E	S-SCREW,MECH HLDR

CD MECHANISM EXPLODED VIEW 2 / 2 (3ZG-2 E3NM)



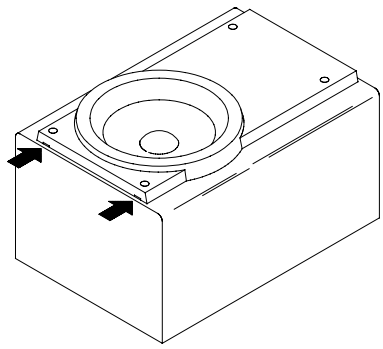
CD MECHANISM PARTS LIST 2 / 2 (3ZG-2 E3NM)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-262-010		CHAS ASSY,E3
2	87-A90-836-010		PICKUP,KSS-213F
3	83-ZG2-235-010		GEAR,A3
4	83-ZG2-236-010		GEAR,MOTOR 3
5	83-ZG2-205-310		GEAR,B
6	83-ZG2-253-010		SHAFT,SLIDE 5
A	87-261-032-210		V+2-3

GENERAL SPEAKER DISASSEMBLY INSTRUCTIONS (FOR REFERENCE)

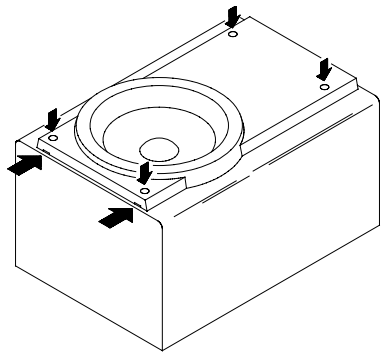
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



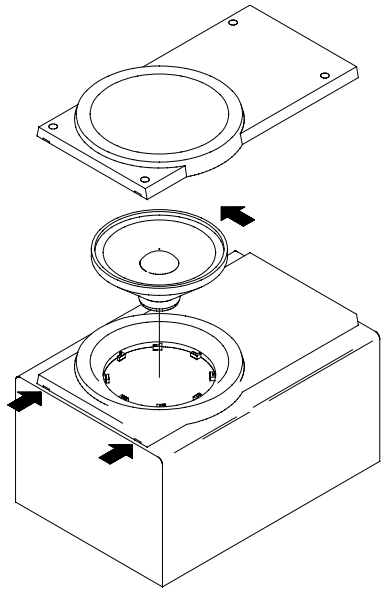
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

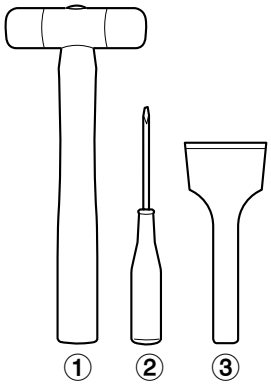


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

① Plastic head hammer
② (⊖) flat head screwdriver
③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

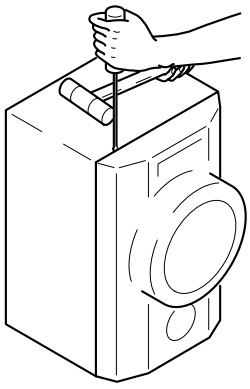


Fig-1

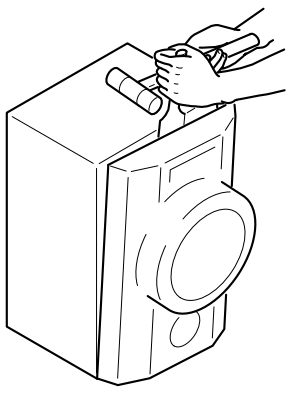


Fig-2

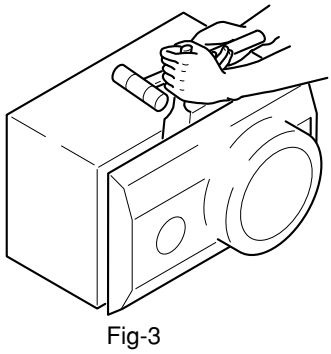


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST (SX-NVC8) <YJSL, YJ3SL, YJSK2BL>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NSM-020-010		GRILLE, FRAME ASSY L
2	8A-NSM-008-010		CORD, SPKR
3	8Z-NSY-003-010		CORD, BUSH<YJSK2BL>
4	8A-NSM-604-010		SPKR, 100<YJSL,YJ3SL>
4	8A-NSM-606-010		SPKR, 100<YJSK2BL>

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NHC-901-010		IB,H(ECA)M
2	8A-NHC-701-010		RC UNIT,RC-AAS09
3	87-043-115-010		ANT,FEEDER FM
4	87-006-225-010		ANT,LOOP ANT NC 2
⚠ 5	87-A91-017-010		PLUG,CONVERSION JT-0476

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